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The Cape Fear — Northeast Cape Fear Rivers Comprehensive Study

A Maritime History and Survey of the Cape Fear and Northeast Cape Fear Rivers, Wilmington Harbor, North Carolina

Volume 1
Maritime History

Claude V. Jackson III

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The Cape Fear — Northeast Cape Fear Rivers Comprehensive Study

A Maritime History and Survey of the Cape Fear and Northeast Cape Fear Rivers, Wilmington Harbor, North Carolina

Volume 1

Maritime History

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Division of Archives and History
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Cover Illustration: View of Wilmington, North Carolina.
From *Gleason's Pictorial Drawing-Room Companion*, c. 1853.

Abstract

This work presents the findings of the cultural resource component of the Cape Fear-Northeast Cape Fear Rivers Comprehensive Study conducted from March 1993 to October 1994 as a cooperative project among the North Carolina Department of Environment, Health, and Natural Resources; the Underwater Archaeology Unit (UAU) of the Department of Cultural Resources; and the Wilmington District, U.S. Army Corps of Engineers (USACOE). The need for the comprehensive study arose from projected deepening and widening of the 33.8-mile-long Cape Fear and Northeast Cape Fear Rivers navigation channel in New Hanover and Brunswick Counties, North Carolina. A comprehensive historical overview of the Cape Fear River was produced, as well as annotated maps of the rivers that showed areas of maritime activity, ferries, bridges, plantations, lighthouses, quarantine stations, fortifications, dredging activity and historically documented and known shipwreck sites. Based on this compiled historical documentation, portions of the river were designated as priority areas according to their potential to yield significant underwater archaeological sites. A remote sensing survey and archaeological investigation was conducted at each of the established priority areas, resulting in the documentation of several previously unrecorded shipwreck sites. More than 150 dives were made on 102 different remote sensing targets. Several targets proved to yield historically significant shipwrecks, among them the Civil War ironclads *North Carolina* and *Raleigh*, the blockade-runner *Kate*, and the early twentieth-century schooner barge *Belfast*. Findings from the cartographic and historical research and the cultural survey are presented in two volumes, as well as recommendations on the protection of sites threatened by the proposed improvements to the navigation channel and their potential eligiblity for listing in the National Register of Historic Places.

Acknowledgments

To undertake a project of this magnitude required the assistance and expertise of several people. While it is not possible to mention everyone involved, the following persons deserve special recognition. We are grateful for the support and cooperation provided by the Department of Environment, Health, and Natural Resources (DEHNR) of the North Carolina Division of Water Resources, and particularly John Morris and John Sutherland for their work on many aspects of this project. Equal appreciation is extended to the Wilmington District, U.S. Army Corps of Engineers (USACOE), for recognizing the need for a comprehensive study of the Cape Fear River and providing support, personnel, equipment, and technical assistance. Many thanks to everyone at the USACOE that assisted on this project, including Col. Robert Sperberg, Lawrence Saunders, Richard Kimmel, Frank Snipes, Coleman Long, Glenn Boone, and Hugh Heine, Ed Turner, Marc Reavis, Ed Summers, and the crews of the *Wanchese* and the *Gillette*.

Special thanks go to those tireless individuals within our own Department of Cultural Resources for their help. Without the continued support from Secretary Betty McCain, Bill Price, David Brook, Wilson Angley, Sarah Freeman, Sondra Ward, Renee Gledhill-Earley, Steve Claggett, Bob Topkins, Lang Baradell, and others in the Division of Archives and History, this project could not have been completed. To the rest of our colleagues at the Underwater Archaeology Unit—Mark Wilde-Ramsing, Leslie S. Bright, Julep Gillman-Bryan, and Barbara Brooks—the authors wish to extend their personal thanks for all the work performed in all phases of this project. Our deepest appreciation and thanks go to the field crew of Glenn Overton, Howard Scott, and Martin Peebles. We are grateful to John Kennington for doing the initial computer maps. An extra acknowledgment is extended to Mr. Peebles for the numerous excellent drawings used in this report.

For the generous use of his equipment and providing technical support, Gordon Watts of Tidewater Atlantic Research is specially recognized. Thanks go as well to the staff at Carolina Beach State Park for allowing us the use of its marine facilities during this project. The enormous task of compiling the vast maritime history of the Cape Fear River was greatly aided by the knowledgeable assistance from such individuals as Beverly Tetterton at the New Hanover County Library and historian William Reaves. To all those other individuals who contributed valuable assistance, we are deeply appreciative.

Claude V. Jackson
Richard W. Lawrence
Glenn C. Overton
September 1, 1995

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Introduction

From March 1993 to October 1994 the state of North Carolina and the Wilmington District, U.S. Army Corps of Engineers (USACOE), conducted a cultural resource survey as part of the Cape Fear-Northeast Cape Fear Rivers Comprehensive Study. The need for the comprehensive study arose from findings by the U.S. Army Corps of Engineers in its May 1991 (revised May 1992) *Reconnaissance Report on Improvement of Navigation Cape Fear-Northeast Cape Fear Rivers Comprehensive Study* conducted under authority of a United States House of Representatives resolution adopted September 8, 1988, by the Committee on Public Works and Transportation (USACOE 1992, Vol. III:A-36-38; USACOE 1994:1). In the report, existing channel depths and widths were found to be inadequate for the deep-draft vessels that called at the Port of Wilmington. Public concern was specifically directed toward increasing the channel depth over the ocean bar and up to Wilmington and widening the channel with the placement of a 6.2-mile-long passing lane to accomodate two-way river traffic. The reconnaissance report concluded that improvements to the Lower Cape Fear River, or Wilmington Harbor, were practical and called for a feasibility study that included a cultural resource survey and an Environmental Impact Statement. Under mutual consent the North Carolina Department of Environment, Health, and Natural Resources (DEHNR) agreed to fund the Underwater Archaeology Unit (UAU) of the North Carolina Department of Cultural Resources (DCR) in conducting a historical and cartographic study and a submerged cultural resources survey as part of the Cape Fear River feasibility study (Memorandum of Agreement, March 17, 1993).

Wilmington Harbor is a Federal navigation project located along the Cape Fear and Northeast Cape Fear Rivers in New Hanover and Brunswick Counties, North Carolina **(Figure 1)**. The navigation project extends from the Cape Fear River ocean bar upstream to a point 1.7 miles above the Hilton Railroad Bridge at Wilmington on the Northeast Cape Fear River. Total length of the existing Wilmington Harbor project is approximately 33.8 miles (including the 3-mile Bald Head ocean channel). Over the last one hundred years navigable depths and widths within the harbor have increased to their present capacity for oceangoing vessels. Currently there are forty-seven major piers, wharves, docks, and mooring dolphins in Wilmington Harbor. Fourteen of the major docking facilities are owned by the North Carolina State Ports Authority. The State Ports Authority facilities include eleven berths and approximately 6,800 feet of berthing (USACOE 1994:7). Deep-draft and oceangoing vessels account for approximately 82 percent of the commerce of Wilmington Harbor, almost equally divided between foreign and coastwise trade. Petroleum products and industrial chemicals constitute the majority of the tonnage (USACOE 1992:3).

The existing Corps of Engineers Federal Project at Wilmington Harbor is authorized to maintain a main channel of 40 feet deep and 500 feet wide from the Atlantic Ocean through the ocean bar and entrance channels. Because of dredging inaccuracies and rock obstructions, however, the authorized depth of 40 feet has not been achieved at

Smith Island or Baldhead Shoal channel. From the entrance channels to the upper end of the anchorage/turning basin at the Cape Fear Memorial Bridge the Corps has been authorized to maintain the main channel at 38 feet deep and 400 feet wide. From the Cape Fear Memorial Bridge to the Hilton Railroad Bridge over the Northeast Cape Fear River, a channel of 32 feet deep and 400 feet wide is maintained and includes a turning basin of the same depth. The channel is maintained at 25 feet deep and 200 feet wide from the Hilton Railroad Bridge to a point 1.7 miles above the bridge. A turning basin located 1.25 miles above the Hilton Railroad Bridge is also dredged to the same depth (USACOE 1994:7).

The Corps of Engineers considered several alternative improvements to the Cape Fear and Northeast Cape Fear Rivers prior to this study. Of the options the recommended plan for further study at Wilmington Harbor included improvements at three reaches. Reach 1 is the main navigation channel from the ocean bar to the Cape Fear Memorial Bridge at the State Port; Reach 2 extends from the Cape Fear Memorial Bridge to the Hilton railroad bridge; and Reach 3 extends from the Hilton railroad bridge to the upstream limits of the Federal project on the Northeast Cape Fear River (USACOE 1996:11).

At Reach 1 the recommended plan includes deepening the ocean bar channel and entrance channels to 44 feet and maintaining the existing width of 500 feet. The river channel would be deepened from 38 to 42 feet from the Lower Swash Channel to the Cape Fear Memorial Bridge. Other improvements recommended for further study include widening the existing 400-foot channel to 600 feet and constructing a 6.2-mile-long passing lane that would extend from river mile 10 upriver to river mile 16.2. An anchorage/turning basin upriver from the North Carolina State Port would also be widened from 1,200 feet wide to 1,500 feet wide (USACOE 1996:11).

Deepening of Reach 2 from its current depth of 32 feet to 38 feet was authorized as part of the Northeast Cape Fear River project. The recommended plan includes no further deepening of this reach on the present project (USACOE 1996:11).

At Reach 3 the recommended plan includes deepening the river from the existing 25-foot depth to 34 feet. Channel deepening would begin at a point 750 feet upstream from the Hilton Bridge. The existing 200-foot channel would be widened to 300 feet. Widening of the upper turning basin from 700 to 800 feet and dredging to 34 feet is also included in the recommended plan (USACOE 1996:11).

The cultural resource component of the Cape Fear-Northeast Cape Fear Rivers Comprehensive Study consisted of a cartographic, site records, and literature review; a submerged cultural resources survey; and the production of a final report. This work represents the results of the cultural resource study in two volumes. The first volume details the historical and cartographic investigations, while the second contains the results of the survey investigation.

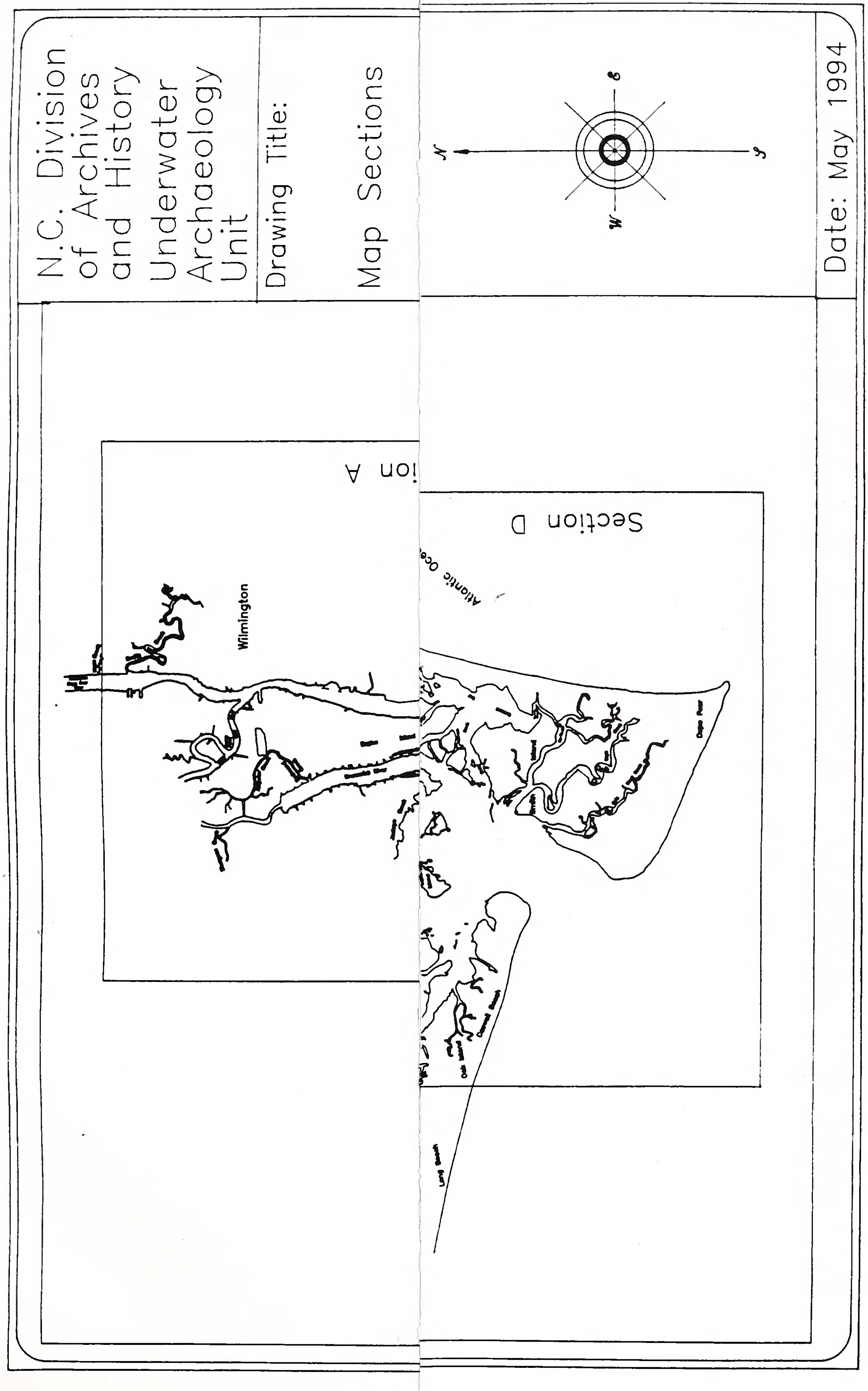
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Figure 1. Map Sections of the lower

Smith Island or Baldhead Shoal channel. From the entrance channels to the upper end of the anchorage/turning basin at the Cape Fear Memorial Bridge the Corps has been authorized to maintain the main channel at 38 feet deep and 400 feet wide. From the Cape Fear Memorial Bridge to the Hilton Railroad Bridge over the Northeast Cape Fear River, a channel of 32 feet deep and 400 feet wide is maintained and includes a turning basin of the same depth. The channel is maintained at 25 feet deep and 200 feet wide from the Hilton Railroad Bridge to a point 1.7 miles above the bridge. A turning basin located 1.25 miles above the Hilton Railroad Bridge is also dredged to the same depth (USACOE 1994:7).

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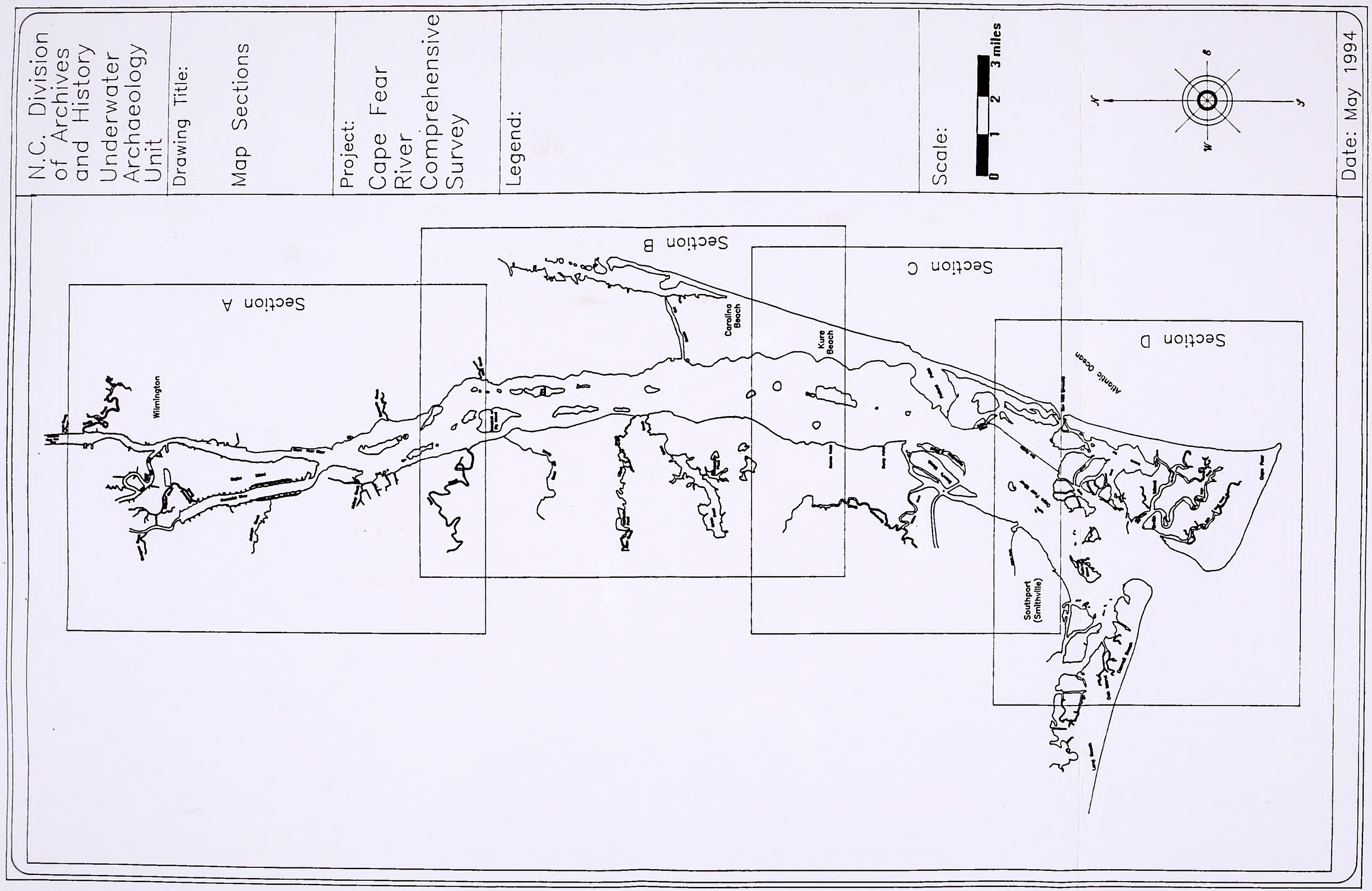
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Atlantic Ocean
Southport (Smithville)

Figure 1. Map Sections of the lower Cape Fear River.

Investigations during the cartographic, site records, and literature review phase of the study included a thorough examination of maps, shipwreck records, and historical and archaeological reports concerning the Cape Fear and Northeast Cape Fear Rivers. Research materials were obtained from the Wilmington Corps of Engineers office, the North Carolina Underwater Archaeology Unit, New Hanover County Library and Museum, the North Carolina State Archives, and the National Archives. During this phase a comprehensive historical overview of the Cape Fear River was produced, as were computer-generated maps of the river that showed areas of maritime activity such as plantation and fortification sites, lighthouses, ferries, quarantine stations, historically documented and known shipwreck sites, and other areas of related maritime significance.

Based on the historical documentation, areas within the rivers were assigned a high, medium, or low potential for containing significant underwater archaeological sites. Recommendations were then made concerning the type and intensity of survey needed for each portion of the river. Based on their potential to yield submerged cultural resources, twelve priority areas were selected for a remote sensing survey. Each area was selected on the basis of the accuracy of historical documentation of likely shipwreck locations or from known activity during historic times.

The UAU and the Corps of Engineers conducted the systematic submerged cultural resources survey of the Cape Fear and Northeast Cape Fear Rivers during the fall of 1993. The USACOE provided a vessel, magnetometer, positioning equipment, and staff to conduct part of the remote sensing survey and provide the data analysis. The UAU then utilized that information to conduct a side-scan sonar survey and diver investigation. Technical personnel, a dive boat, diving equipment, and excavation and site documentation equipment were provided by the Underwater Archaology Unit. Within the established priority areas more than 150 dives were made on 102 different remote sensing targets. A complete description of the survey methodology can be found in the Fieldwork Methodology Section of Volume 2. Based on the findings of the survey, recommendations were made to the Corps of Engineers in the form of an illustrated report that showed those sites threatened by the proposed improvements to the navigation channel and their potential eligiblity for listing in the National Register of Historic Places.

Environmental Setting of the Lower Cape Fear River

General Setting

Wilmington Harbor is located along the lower Cape Fear River, New Hanover and Brunswick Counties, North Carolina, within the lower part of the Atlantic Coastal Plain Physiographic Province. Elevations range from sea level to 60 feet (Dept. of Agriculture 1977:1). The geomorphology of the Cape Fear area was created by events such as emergence and submergence of the Coastal Plain, deposition and erosion of sediments, development of the Cape Fear River, and wave and current action of the Atlantic Ocean. Wilmington Harbor is North Carolina's largest deepwater port.

The Cape Fear River is formed by the union of the Deep and Haw Rivers on the Chatham-Lee county line. From there the Cape Fear River flows south-southeast through several counties, including Brunswick and New Hanover, and empties into the Atlantic Ocean about 5 miles northwest of Cape Fear. The river, including the Deep River, its longest tributary, has a total length of about 320 miles and a total drainage basin of about 9,140 square miles. At Wilmington the river is approximately 600 feet wide. Its width increases gradually downstream to one mile at a point just below the mouth of the Brunswick River; thence, to the ocean, it varies from one mile to 2¼ miles. The ocean bar is about 2 miles seaward of the river mouth. Frying Pan Shoals extends outward from Cape Fear, creating a navigation hazard. Below Wilmington the river is a tidal estuary 28 miles long, with an incremental drainage area of about 350 square miles. The average tidal range is approximately 4 feet. Surface waves of less than 3 feet are typical within the estuary (USACOE 1977:14; USACOE 1989:28).

The Northeast Cape Fear River begins in northwest Duplin County about 2 miles south of Mount Olive. It flows generally south-southeast through several counties for approximately 130 miles until it joins with the Cape Fear at Wilmington in New Hanover County. The Northeast Cape Fear River appears as the Northeast Fork and North East River on the Collet (1770) map (Powell 1968:355). Another tributary, the Brunswick River, branches off the Cape Fear River 3 miles above Wilmington, flows southeasterly 5½ miles, and rejoins the main stream about one-quarter mile below the city. The Intracoastal Waterway enters the Cape Fear River from the east about 15 miles above the mouth, follows the river southwesterly to a point near Southport, 4 miles above the mouth, and then continues westward (USACOE 1977:14).

Climate

Wilmington Harbor is in a maritime location that makes the climate unusually mild for its latitude. The coastal area is frequently cooled by ocean breezes. Both winters and summers generally tend to be mild, with average temperatures ranging from a low of 47.9 degrees in January to 80.0 degrees in July. Extremes have been recorded at 5 degrees in February 1889 and 104 degrees in June 1952. Average annual rainfall is

51.29 inches and, though slightly heavier during the summer months, tends to be evenly distributed throughout the year (USACOE 1977:14-15; Dept. of Agriculture 1977:1).

Geology

The Coastal Plain is comprised of sediments in the shape of a large wedge, with the thin edge at the "Fall Line" and the thicker edge toward the Atlantic Ocean. Those sediments overlie Paleozoic-Precambrian-age rock. The Fall Line is the boundary at which the coastal sediments interface with the older Paleozoic-Precambrian-age rocks of the Piedmont. The sediments dip to the southeast at about 13 feet per mile at Cape Fear and range in age from Cretaceous Period sediments exposed in the west and recent sediments exposed in the east (USACOE 1989:C-2).

The soils of the Cape Fear area reflect coastal deposition. Those types of depositions may be barrier, backbarrier, marsh-swamp, open ocean, or marginal marine. Most of the Atlantic coast from Wrightsville Beach, North Carolina, to the North Carolina-South Carolina border is flanked by predominantly Holocene-age (10,000 years ago to present) barriers. The soil and rock types of the Cape Fear area can be categorized into three groups: 1) surficial sand (Holocene), 2) Pleistocene sediments, and 3) Castle Hayne limestone. The uppermost sediments generally tend to be poorly graded surficial sands, buff colored and Holocene in age. Those Holocene sands may be indistinguishable from the underlying buff-colored Pleistocene-age Socastee sand that is most often found near the coast. Underlying the Socastee formation is the Canepatch formation. It consists of admixtures of sand, clay, silt, and peat, and in some areas coquina is present. Silty and sandy blue to gray clay is present. Shell fragments or layers of shell fragments may be found in the Socastee and the Canepatch formations. The Canepatch formation acts as an aquitard between the surficial or upper aquifer sands and the underlying Waccamaw and Bear Bluff formations.

The boundary between the Waccamaw and Bear Bluff formations is difficult to distinguish and is considered as a single unit. The Waccamaw and the Bear Bluff form the marine sand aquifer. The Waccamaw and the Bear Bluff are usually composed of green-gray to blue-gray silty sand or sand. The sand may have varying degrees of induration and may contain an abundance of mollusk and echinoid shells. Finally, the Castle Hayne formation is a poorly to well-cemented limestone, sometimes argillaceous in places. It is occasionally very fossiliferous, with echinoderm fragments. In other places it may have numerous mollusk casts and molds (USACOE 1989:C-2,3).

Historical and Cartographic Research Methodology

The cartographic, site records, and literature review phase of the study included a thorough examination of maps, shipwreck records, and historical and archaeological reports concerning the Cape Fear and Northeast Cape Fear Rivers. The findings of that research are presented in the following Historical and Cartographic Research sections. When possible, the information in each category follows a chronological progression. Research materials were obtained from many sources including the Wilmington District, U.S. Army Corps of Engineers; the North Carolina Underwater Archaeology Unit; New Hanover County Library and Museum; the North Carolina State Archives, and the National Archives. Much of the historical information was obtained from accumulated local newspaper accounts in the William Reaves Collection maintained at the Underwater Archaeology Unit.

A major portion of the Historical and Cartographic Research sections involved the documentation of areas and features along the river associated with maritime activity. Following an overview of the prehistoric and contact period of the lower Cape Fear River, several historic structures and locations have been described. They include: plantations, fortifications, lighthouses and lightships, historic and recent river channels, ferries, and historically documented and known shipwreck sites. Each topic has been completely discussed except for shipwreck locations. Since all of the three hundred documented ship losses known to have occurred in the Cape Fear could not be individually described, a representative sample of thirty-two known or predicted sites have been discussed. A complete listing of the vessel losses can be found in Appendix 1A.

Documentation of the historic features along the river began with the acquisition of 139 maps of the Cape Fear River from various federal, state, and private collections. A number of the maps, which ranged in date from 1585 to 1992, covered only a portion of the river, while others documented the entire lower Cape Fear in its entirety. Upon examination of each map, the key historical features were first entered in a database file, then presented in text as cartographic descriptions. When known, the earliest use of a place-name has been noted in the historical sketches and indicated in the text in quotes as such place-names appear on the historic maps. When a change occurred in the spelling or location of a place-name, the change was noted. Through the process of chronicling historic man-made and natural features across a large collection of cartographic sources, the researchers were able to document the first occurrence, subsequent changes, and length of usage for many of the places and structures along the Cape Fear. This approach allowed the researchers to later evaluate all of the accumulated cartographic information in conjunction with historical information in determining the placement of survey, or priority, areas, and especially in testing hypotheses about shipwreck location.

To illustrate the distribution and occurrence of maritime-related man-made and natural features, several computer-generated drawings showing most types of historic structures such as plantations, fortifications, and shipwrecks and prominent geographic locations were produced for the report. For each subject, the length of the Cape Fear River from Wilmington to the mouth has generally been divided into four map sections for illustration. Historically documented and known shipwreck locations have been numbered on the drawings and corresponding tables that show the name and background information of each wreck.

Historical Research

Prehistory

The prehistoric occupation along the shores of the Cape Fear River, within the Coastal Plain, follows temporal divisions similar to those established by archaeologists for the eastern United States: Paleo-Indian, Archaic, and Woodland. Each temporal division is distinguished by the climate, technology, and subsistence patterns characteristic of the period. The Coastal Plain physiographic province can also be divided into two cultural-spatial units, the North Coastal and South Coastal regions, based upon cultural differences that appear to begin near the end of the Late Archaic period. The Cape Fear River vicinity is located within the South Coastal region (Phelps 1983:16).

The Paleo-Indian Period (12000 - 8000 B.C.)

The Paleo-Indian period of eastern North Carolina is the earliest and least known of the cultural divisions. The adaptive subsistence of nomadic Paleo-Indian groups who lived during this period is generally associated with specialized hunting and gathering, or megafauna hunting during the end of the Wisconsin glaciation, when its retreat brought about climatic and environmental changes (Willey 1966:37-38). Evidence of the period is almost entirely limited to the surface distribution of projectile points. For the most part, Paleo-Indian sites have been recorded in the uplands, where a combination of extensive agricultural disturbance, soil erosion, lack of soil accumulation, and no deep stratification have developed. These sites lack the stratification needed for comparative analysis and dating. At the time of their occupation during the Paleo-Indian period, sites would have been located on the Inner Coastal Plain (Phelps 1983:20). The environment of the Coastal Plain during the Paleo-Indian period was one of broad river valleys with braided stream channels around numerous sandbars, freshwater marshes along the stream edges, and a boreal pine-spruce forest on the interstream uplands (Whitehead 1972:313). With the retreat of the last glaciers, the sea level rose to near its present level, inundating coastal sites.

The Paleo-Indian settlement patterns, which consist of short-term-activity sites and longer-utilized base camps, appear to be associated with access to lithic materials for tool manufacture, such as quartz, quartzite, slate, rhyolite, chert, and jasper, which were brought down from the mountains and Piedmont areas by river currents (Phelps 1983:21). Other factors that influenced site location included access to water, habitats favorable to game, and sunlight exposure (Thompson and Gardner 1979:23). Many sites located near water are likely buried or inundated. Archaeologically, the Paleo-Indian period is most readily identified by a distinctive form of fluted projectile point. The retreat of the Wisconsin glaciation brought about changes in the flora and fauna communities, particularly the disappearance of the megafauna. In response to these warmer, drier environmental conditions, small bands of Paleo-Indian hunters and gatherers appear to have increased their reliance on a more diversified resource base (Gardner 1977: 288:257-263).

The Archaic Period (8000 - 1000 B.C.)

The second major division of eastern United States prehistory is the Archaic Period, which developed from the preceding Paleo-Indian Period about 8000 B.C. With the change in climate following the glaciation, better efficiency and success in exploiting the local resources resulted in a slight increase in human population. The density of Archaic sites found within the Coastal Plain is higher than for any other prehistoric period. Those sites can be found in all microenvironments, from saline estuary shores to stream margins and their tributary systems, as well as pocosins and floodplain swamps. There is a strong relationship between site location and accessibility to streams. Surveys that have documented Archaic sites in the Coastal Plain indicate that the majority of sites represent short-term-activity localities evenly distributed along streams. Fewer base camps, found near the confluence of major streams, may indicate seasonal utilization of available resources. Most sites, however, are found in the inner Coastal Plain, which may in large part result from burying, or inundation, of sites similar to those of the earlier period. Stratified Archaic sites are scarce but probably do exist in select undisturbed areas within the inner Coastal Plain (Phelps 1983:24).

During the Archaic Period the population utilized a wider range of habitats for subsistence and thus likely a wider range of plants and animals. A transition in climate brought pines, hemlock, birch, and northern hardwoods such as beech and maple, replacing the earlier boreal forests. A diversity in faunal and plant types would also have accompanied these habitat changes (Phelps 1983:23). Hunting strategies adapted to the diversification in faunal species are reflected in changes of lithic spear-point styles. Other lithic tools, such as scrapers, blades and drills used for the processing of bone and hides, are also identifiable to the Archaic Period.

An environmental change known as the hypsithermal brought warmer and drier weather to the eastern United States and marks the beginning of the Middle Archaic (5000 - 3000 B.C.) subperiod. During that time the pine-birch-hemlock forests of the Coastal Plain were replaced by oak and hickory hardwood forests. The number of habitation sites increased slightly from the Early to Middle Archaic. Lithic point types experienced a transition in shape, while other new types appeared and are believed to represent introduction and possible trade with other areas. Polished stone and semilunar spear-thrower weights also appear for the first time. The Middle Archaic terminated with an increase in sedentism and new technologies.

The Late Archaic (3000 - 1000 B.C.) is represented by less diversification and a higher degree of sedentism, believed to be a result of improved subsistence adaptation. The appearance of steatite (soapstone) vessels for cooking and storage, as well as fiber-tempered ceramic wares, appear to support this belief. A distinction between the North Coastal Plain and the South Coastal Plain can be based on the distribution of this ware

(Phelps 1983:26). Site diversity appears to have remained relatively stable into the Late Archaic, but some localities show a noticeable reduction of Late Archaic site density along smaller tributary streams (Phelps 1983:25).

The Woodland Period (1000 B.C. - A.D. 1650)

The Early Woodland Period (1000 - 300 B.C.) is marked by further diversification in subsistence strategies and widespread use of ceramics that began to appear during the Late Archaic Period. Little is known, however, about settlement patterns or subsistence strategies on the Coastal Plain during this transition. Settlement patterns are believed to be continuous with the preceding period, however. It is thought that cultigens are also introduced during this period, but their immediate effect is not readily seen in the archaeological record. Lithic projectile points are of the small-stemmed variety, considered transitional from an older Archaic type (Phelps 1975:68).

In the South Coastal region, New River is the named phase during the Early Woodland Period. There is a similarity between the New River phase and the Deep Creek phase for the North Coast, but the New River phase is believed to carry on characteristics found only in the southeast United States. From the beginning of the Woodland Period, culture of the South Coastal region is presumed to be Siouian territory, while the North Coastal region is Algonkian and Iroquoian territory with the language and customs distinctive to each region (Phelps 1982:37, 47).

The Middle Woodland Period (300 B.C. - A.D. 800) is better understood than the preceding period. Phase names for that period are Mount Pleasant for the North Coastal region and Cape Fear for the South Coastal region. The Cape Fear phase is less well known than the Mount Pleasant phase. Sedentary villages represent the largest single settlement type of the period. This shift in pattern from hunting and gathering camps is generally attributed to an increased dependence on domesticated plants, especially maize, and the collection of shellfish. During the Middle Woodland period ceramic types are similar between the North Coastal and South Coastal regions. The distinguishing trait between the two appears to be the manner of human burial. Found in the South Coastal region is an extensive distribution of low sand burial mounds unique to the region. The high frequency of secondary cremation, platform pipes, and other objects in the mounds and the fact that at least some of the mounds appear to be placed away from their contemporaneous habitation sites point to southern influence into the South Coastal region during this period (Phelps 1983:32-35).

Fully developed horticulture characterized the Late Woodland (A.D. 800-1650), although protein was still obtained from hunting and fishing (Hay 1982:11). Ceramic variations were frequently stylistic, although technological aspects such as tempering agents and firing techniques served as temporal and locational indicators. Lithic technology was a continuum of triangular points that generally decreased in size as the Woodland Period progressed. Siouian-speaking Waccamaw and Cape Fear tribes occupied the South Coastal region at the time of European contact. The settlement pattern during the Late Woodland was relatively dispersed, with site locations found along the sounds, estuaries, major rivers, and their tributaries. Most of the sites that occurred away from the barrier islands are found adjacent to streams or other bodies of water on high banks and ridges of sandy loams. Types of sites include capital villages (chiefdoms), villages, seasonal villages, and camps for specialized activities, as well as farmsteads likely occupied by extended families. Except for the camps, which appear to be directly related to seasonal gathering of shellfish, fishing, and perhaps collecting, all seasonal and larger villages are located where agriculture, hunting, gathering, and fishing could all be accomplished within the site catchment area. Exploitation of a wide range of habitats provided the needed food sources. Maize; hickory nuts; faunal remains of bears, deer, and a wide variety of small animals; alligators; terrapins and turtles; fish; and both marine and riverine shellfish have been found at excavated sites of this period. By the end of the Late Woodland period, cultigens of squash, beans, and sunflowers were being grown, as observed by European explorers (Phelps 1983: 39-40).

Contact Period

The Indian tribes traditionally associated with the coastal area of southeastern North Carolina at the time of European contact were the Cape Fear and Waccamaw (Swanton 1946:103, 203; South 1960:9). Other, less prominent, tribes included the Woccon, Saxapahaw, and Warrennuncock. In reference to the Woccon, Saxapahaw, Cape Fear, and Warrennuncock Indians, one nineteenth-century ethnographer accounts: "Of the North Carolina tribes bearing the foregoing names almost nothing is known, and of the last two even the proper names have not been recorded. The Woccon were Siouan; the Saxapahaw and Cape Fear Indians presumably were Siouan, as indicated from their associations and alliance with known Siouan tribes; while the Warrennuncock were probably some people better known under another name, although they cannot be identified" (Mooney 1894:65).

Although no native name has been preserved for them, the Cape Fear Indians most likely were affiliated with the Siouan peoples located farther to the south. Only the name of a village, Necoes, and a chief, Wat Coosa, have been clearly identified with the tribe. It was probably the Cape Fear tribe that encountered the first Europeans who attempted to settle along the Cape Fear River in the 1660s. Those early colonists bestowed the name on the Indians they found occupying the lands at the mouth of the Cape Fear River, and particularly the peninsula that presently forms the southern portion of New Hanover County. In December 1662 William Hilton, leader for the Charles Town settlement, met with Chief Wat Coosa on Big Island, in the Cape Fear River, where he purchased the river. It is doubtful whether the Indian population of the peninsula ever exceeded a few hundred (Swanton 1946:103; South 1960:9; Sprunt 1992:14-15; Wilmington Star-News July 4, 1975). A nineteenth-century historian described the Indians as follows: "The men are thrifty, industrious and peaceable; engaged principally in fishing during the shad season, and in cattle-raising upon the same range that was occupied two hundred years ago by their . . . ancestors" **(Figure 2)** (Sprunt 1896:54-55).

It is also possible that the name "Cape Fear Indians" applied to all the Indians living along the Cape Fear River, regardless of their tribal connection. In 1731 Dr. John Brickell, a naturalist and historian, traveled through the state and mentioned by name other tribes in the Cape Fear vicinity. In his published work, Brickell wrote: "the Saponas live on the west branch of the Cape Fear River; the Toteras are neighbors to them; the Keyawees live on a branch that lies to the northwest" (Brickell 1731; Sprunt 1992:25). Historian Samuel A. Ashe wrote in 1908 that "the Cape Fear Indians along the coast were Southern [Siouan]. The Saponas who resided higher up were probably Northern [Algonkian or Iroquoian]" (Ashe 1908:211-215; Sprunt 1992:14). Other accounts claim that "the Indians on the lower Cape Fear are said to have been Congarees, a branch of the old Cheraws," and that soon after the settlement at Charles Town they were driven away (Sprunt 1992:16, 25).

In The Indians of the Southeastern United States John Swanton writes about the Waccamaw Indian tribe of southeastern North Carolina:

> The name of this tribe possibly occurs in a list of "provinces" furnished by Francisco of Chicora in 1521 in the form "Guacaya." When the English established themselves in South Carolina in 1670, the Waccamaw were living along the river which bears their name [Waccamaw in southeast North Carolina] and on the lower course of the Pee Dee, in close association with the Winyaw and Pedee tribes. They were somewhat remote from the white settlements, and did not play much of a part in the history of the province until the Yamasee War broke out. They joined the hostilities, but during the same year, as we learn from the South Carolina archives, "the Waccamaws and other nations bordering on the sea . . . made peace with us fearing the Cherakees." In 1717 this tribe had moved south of Black River . . . (Swanton 1946:103).

At about the time of the Charles Town settlement on the Cape Fear, the Waccamaw would have occupied lands west of the Cape Fear River in what is now western Brunswick County. During the Tuscarora War (1711-1713) the first major conflict between native Carolinians and white colonists, Yamassee warriors from South Carolina were promised slaves in exchange for their assistance against the North Carolina Tuscarora (Perdue 1985:29). The northern Tuscarora defeated the smaller southern Cape Fear and Waccamaw tribes which forced those tribes to move from southeastern North Carolina into South Carolina (Ashe 1908:213). Local tradition along the Cape Fear holds that in 1725, after having his plantation attacked, Roger Moore and a small force of neighbors and servants spotted the Indians "who lived on the Cape across from the plantation, at play and bathing in the river near Big Sugar Loaf, marched up the river out of sight, crossed over, and taking the savages by surprise, exterminated the whole tribe" (Sprunt 1896:63; South 1960:16).

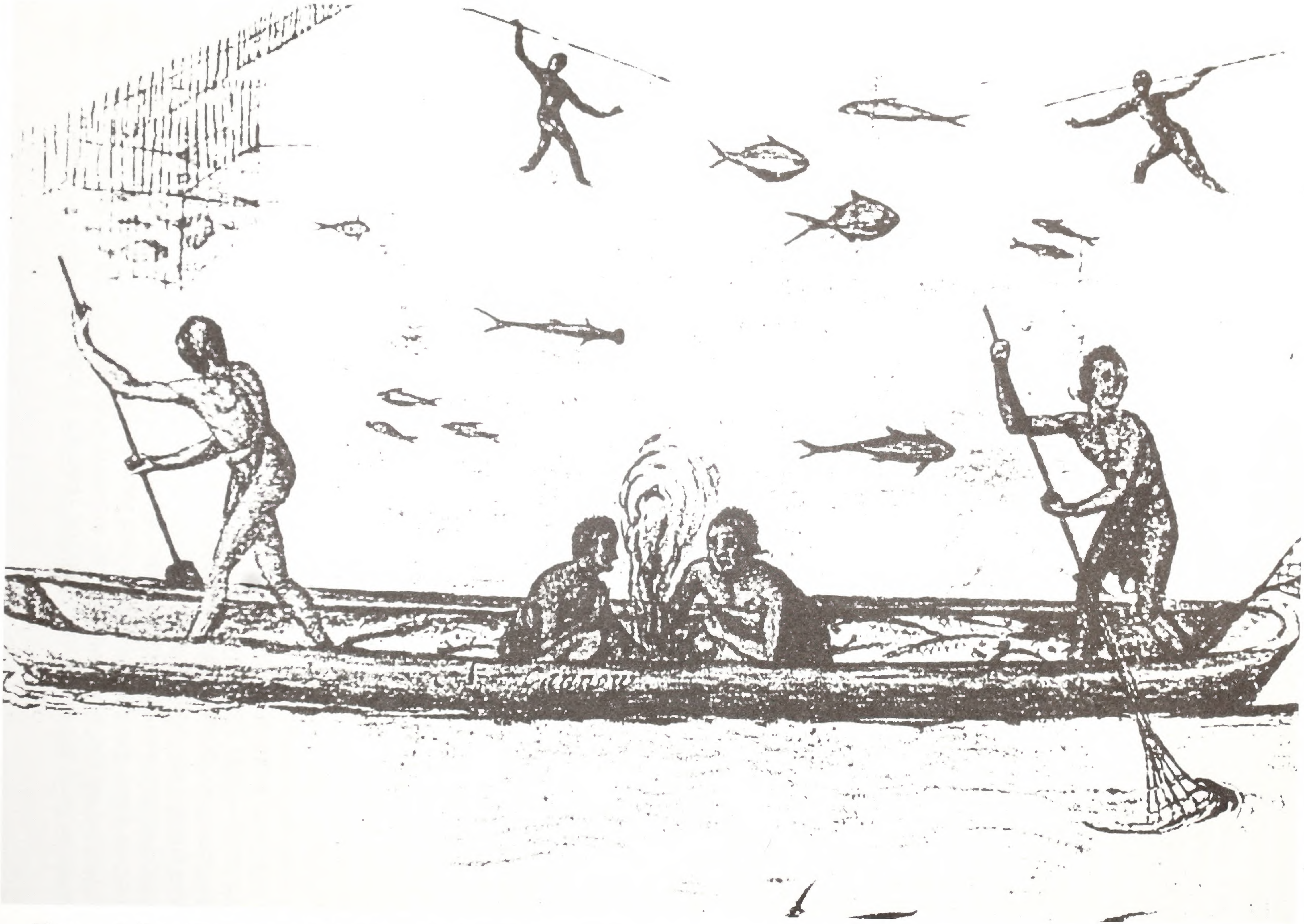


Figure 2. Illustration of Native American fishing techniques.

Another reference that indicates that the Indians were gone from the Cape Fear area by 1730 is found in Hugh Meredith's work, An Account of the Cape Fear Country 1731. Meredith had once been in partnership with Benjamin Franklin, before Franklin bought him out. When Meredith later visited the Cape Fear region, he wrote two letters back to Franklin in Pennsylvania, who had them published in a local newspaper:

> One great Discouragement to settling this Place is now quite removed, to wit, the Indians, who drove away or cutt off those who attempted the settling it. . . . But now there is not an Indian to be seen in the Place; the Senekas, (who have always liv'd in Amity with the English) with their Tributaries Sesquehanah and Tuskarora Indians, having almost totally destroy'd those called Cape Fear Indians, and the small Remains of them abide among the thickest of the South Carolina Inhabitants, not daring to appear near the out settlements, for the very Name of a Seneka is terrible to them . . . (Pennsylvania Gazette, May 6, 13, 1731).

James Sprunt (1916) cites an account of a young gentlemen traveling to South Carolina in 1734 who stated that at least some of the Cape Fear and Waccamaw Indians still resided near Lake Waccamaw, 30 miles west of the Cape Fear River: "There is an old Indian field to be seen, which shows it was formerly inhabited by them, but I believe not within these fifty years, for there is scarce one of the Cape Fear Indians, or the Waccamaws, that can give any account of it" (South 1960:12).

Archaeological and historical evidence further indicates that some Indians continued to exist in the Cape Fear region until the early nineteenth century. By 1808 only one identifiable member of the Cape Fear Indians survived (South 1960:12, 61; Sprunt 1992:14; Swanton1946:103). By the mid-nineteenth century the last of the historic native population had disappeared, and only their modern-day descendents in South Carolina and western North Carolina, along with the archaeological remains of their settlements, remained. "Large Mounds of oyster-shells, many pieces of broken wicker pottery, arrow-heads, and other relics of the red men are still found on the peninsula below Carolina Beach. Remains of Indian settlement were frequently unearthed by the Confederates engaged upon the intrenchments around Fort Fisher" (Sprunt 1896:54-55). Archaeological evidence from those past inhabitants can still be found along the shores and tributaries of the Lower Cape Fear River (South 1960; Wilde-Ramsing 1978).

Explorers and Regional Settlement

The first known European exploration of the Carolina coast occurred in 1524, when Francis I, king of France, sent Italian Giovanni da Verrazano to search for a passage to Asia. On completing his westward passage across the Atlantic Ocean from France, Verrazano sighted land in early April at about 34 degrees north, probably near Cape Fear. Verrazano did not linger long in the Cape Fear vicinity before heading his ship toward the region of the Outer Banks (Lee 1965:12-15; Cumming 1957:9). Prior to continuing his exploration northward, Verrazano penned what may be the earliest known written description of any part of the Lower Cape Fear region. His account reads in part:

> This land is in latitude 34 degrees, with good and wholesome ayre, temperate betweene hot and colde, no vehement windes doe blowe in those Regions, and those that doe commonly reigne in those coasts, are the Northwest and West windes in the summer season, (in the beginning whereof we were there) the skie cleere and faire with very little raine: and if at any time the ayre be cloudie and mistie with the Southerne winde, immediatly it is dissolved and waxeth cleere and fayre againe. The Sea is calme, not boysterous, the waves gentle: and although all the shore be somewhat sholde and without harborough, yet it is not dangerous to the saylers, being free from rocks and deepe, so that within 4 or 5 foote of the shore, there is 20 foote deepe of water without ebbe or flood, the depth still increasing in such uniforme proportion. There is very good ryding at Sea: for any ship being shaken in a tempest, can never perish there by breaking of her cables, which we have proved by experience. For in the beginning of March (as is usuall in all regions) being in the Sea oppressed with Northern windes, and ryding there, wee found our anchor broken before the earth fayled or mooved at all . . . (Hakluyt 1927:X:3-4).

Another early exploration occurred in 1525-1526 by Spaniard Lucas Vásquez de Ayllón, a judge on the appeals court at Santo Domingo, the present capital of the Dominican Republic. In 1521 Ayllón and another official, Diego Caballero, outfitted a vessel and sent it northward from Hispaniola. Somewhere near the Bahama Islands, Ayllón's ship, under the command of Francisco Gordillo, came upon another vessel, commanded by Pedro De Quexos. Together the two captains sailed their ships west toward the mainland. When the two captains returned to Hispaniola they reported to Ayllón positive accounts of the land and native population. They brought several Indian slaves back to the island, against the instructions of Ayllón. Inspired by their report, however, Ayllón requested and received consent from the crown to establish an extensive settlement on the mainland that included the land of Chicora. Ayllón outfitted six vessels at Santo Domingo with the intention of establishing a settlement on mainland north of Florida. Under his direction the vessels returned in 1525 but instead landed farther north, at the mouth of a large river he called the Jordan—presently known as the Cape Fear River (Oviedo:1855:627-633; Morison 1971:332-334; Lee 1965:3-4).

The six ships that sailed with Ayllón were his flagship; a merchant ship named *La Bretona*; another merchant ship, named the *Santa Catalina*; a third merchant vessel, called *La Chorruca*; a brigantine; and a "patax," or lighter. Aboard the vessels were 500 men, women, and children, including a number of friars and black slaves, and eighty to ninety horses. While attempting to cross the bar into the river, the flagship grounded and was lost. The expedition spent at least enough time along the river to build a new ship, the first by Europeans in North America. That expedition, however, established a temporary settlement in what came to be called the "land of Ayllón." Whether this settlement, known as San Miguel de Gualdape, occurred along the shores of the Jordan (Cape Fear) River or southward some 120 miles at Waccamaw Neck, at the mouth of Winyaw Bay, has never been determined. In either case, the expedition failed in its attempt to establish a permanent settlement. Problems with the Indians, who refused to provide food, as well as cold weather and disease, produced an undisciplined group of settlers. The final blow came when Ayllón died of a fever on October 18, 1526. The remaining colonists chose to return to Santo Domingo. During the return voyage one ship foundered, and only 150 disillusioned survivors reached home (Oviedo:1855:627-633; Morison 1971:332-334; Lee 1965:9-11; Lee 1971:3-4; Watson 1992:4).

Charles Town Settlement

Following the death of Ayllón and the abandoned attempt at settlement, nearly a century and a half passed before the English arrived at the Cape Fear River. In the fall of 1662 William Hilton, commander and agent for a group of people from the Massachusetts Bay Colony, which was interested in moving from New England to the Cape Fear area, arrived at the cape aboard the *Adventure*. Hilton gave to the prominent cape at the mouth of the river the name "Cape Fear" and also called the adjacent Jordan River the "Charles River." On the morning of October 4, 1662, Capt. Hilton sailed his ship into the river, where he remained for three weeks, favorably reporting on the region and purchasing from the local Indians much of the surrounding area. Reaching as far upriver in the *Adventure* as the fork in the river (present-day Wilmington), Hilton and some of his crew proceeded in a small boat up the Northeast River, which he mistakenly took to be the main channel. Hilton also explored the Brunswick River, which he named in his own honor. His report of the voyage indicated that he explored "Hilton's River" for several miles and found it to be "as fair, if not fairer than the Northeast branch. . . ." A map prepared by Nicholas Shapley of Massachusetts Bay in 1662 to accompany the written report by William Hilton upon his return to New England is the first map to show the lower Cape Fear in any detail. Cape Fear is not labeled, although it was called "Cape feare" in Hilton's report (Sprunt 1992:30-32; Lee 1965:28-33; Lee 1971:4-5; Lee 1978:12; Reaves 1988:1; USACOE 1977:14).

Encouraged by the favorable report submitted by Hilton, a group of colonists was quickly organized and returned to the Cape Fear that winter, where it briefly established a colony called Charles Town on the western shore of the Cape Fear at the mouth of Indian (Town) Creek. A lack of adequate organization contributed to the Charles Town settlement's being abandoned by April 1663. It was during that time that the king of England granted all of the country south of Virginia to his eight Lords Proprietors of Carolina. Promoters for the new colony from both New England and Barbados petitioned the Lords Proprietors for the right to establish settlements in the lower Cape Fear region, by then known as Clarendon County, after Edward Hyde, earl of Clarendon, one of the Lords Proprietors. For a brief period of time the waterway became known as the Clarendon River (Powell 1968:87,99,107; Angley 1983:1-4; Herring and Williams 1983:4; Sprunt 1992:6; Hall 1980:xix; Lee 1965:4-5; Lee 1971:4).

In 1664 the Lords Proprietors granted a colony from Barbados permission to occupy the former settlement of Charles Town. John Vassall, the leading promoter of the joint enterprise of colonists from Barbados and New England and London merchants, was appointed surveyor and deputy governor for the colonists. On May 24, 1664, the first settlers from Barbados arrived to reoccupy the abandoned Charles Town settlement at the mouth of Town Creek. Others from New England and Barbados followed, until the number of colonists reached eight hundred. The Proprietors soon selected from Barbados Col. John Yeamans as governor for the colony. To show his favor, the king knighted Yeamans. After losing a ship while trying to enter the Cape Fear, Sir John reached the colony in November 1665 and found it in a state of unrest. A dispute with the local Indians had developed as a result of New England men's having sold some Indians into slavery. The colonists from Barbados also voiced a resentment to the regulations imposed by the Proprietors, especially the regulation not allowing them to select their own governor, as the settlers from Massachusetts had done. Sir John chose to return to Barbados, leaving Vassall in command and responsible for holding the group together. The settlers, already feeling abandoned, lost additional English support when England went to war with Holland. The Charles Town colonists, seeing no other recourse, abandoned their settlement in the Cape Fear during 1665 and traveled overland to the established colonies in the Albemarle and Virginia (Powell 1968:99,107; Angley 1983:1-4; Sprunt 1992:30-32; Lee 1965:5-6; Lee 1971:5; Gascoyne 1682; Lea 1695; Lawson 1709; Wimble 1733; Wimble 1738; Lewis 1795; Price and Strother 1807; USGS 1979b).

Brunswick Town

In 1725 Maurice Moore, son of Gov. James Moore of South Carolina, founded Brunswick Town on the western shore of the Cape Fear River approximately 13 miles above the mouth of the Cape Fear River. Named for King George I, duke of Brunswick and Lunenberg, the town became the first permanent settlement along the Cape Fear River. Maurice Moore, who owned property in Beaufort, North Carolina (1713), and later in Bath (1715), first came to the Cape Fear vicinity in 1715 when he passed through the area to aid South Carolina during the Yamassee War. Moore crossed the Cape Fear River at the Haulover, near Sugar Loaf, and landed at the site that subsequently became Brunswick Town. Several years later, in early 1724, when George Burrington became governor of the colony, the Lords Proprietors were still prohibiting settlement on the Cape Fear. Ignoring that prohibition, Burrington began granting individuals tracts of land along the river until the ban was lifted later that year. On June 3, 1725, Governor Burrington granted to Maurice Moore 1,500 acres of land on the west side of the Cape Fear River. It was on that land that Moore set aside 320 acres and divided a portion into half-acre lots for the town of Brunswick. Moore divided the town into 336 lots, involving slightly more than half of the 320 acres. Later Roger Moore, Maurice's brother, added another twenty lots to the northern edge of the town, bringing the total number to 356. Each lot measured 82½ feet in width by 264 feet in depth (South 1960:1-2; Powell 1968:66-67; Carson 1992:19-20; Ashe 1905: II, 293; Logan 1956:37; Moseley 1733; Wimble 1733; Wimble 1738).

Two named streets were laid out in the town that paralleled the river—Front Street and Second Street. A connecting street was sometimes described as "the alley," or "a crossing street." "Once Maurice Moore had divided his town into lots, he began selling them on the condition that a habitable house 16 by 20 feet be built on the lot within eight months" (South 1960:3-4). Moore sold the first two lots, numbers 22 and 23, to Cornelius Harnett Sr. on June 30, 1726. Harnett, who later went on to fame in the American Revolution, built houses on those lots during that summer. By 1769 Harnett had constructed thirteen buildings on his two lots. It may have been from one of those lots that Harnett operated a ferry between Brunswick Town and the Haulover (see Brunswick Ferry). Only a small number of the remaining lots within the town were ever sold. One of largest structures at Brunswick was the six-room "Publick House" on lot 27, which measured 18 feet by 70 feet. The structure may have also been used as a tailor shop (South 1960:3-4, 8, 10-11; Hyrne 1749; Sauthier 1769).

From the time of its founding until the American Revolution, Brunswick Town served as a political, social, and commercial center of the lower Cape Fear region. Port Brunswick became one of the leading shipping points in North Carolina not long after its founding. By 1731, when New Hanover County authorized the construction of a courthouse within the town, Brunswick also served as a legislative center. Nevertheless, Gov. Gabriel Johnston, elected in 1734, chose to have a courthouse and jail built in the newly formed town of Wilmington, where he moved the seat of government in 1740. Brunswick Town once again became a county seat when Brunswick County was formed from New Hanover County in 1764. A hurricane that struck Brunswick five years later destroyed the Brunswick County courthouse (South 1960:22-23; Sauthier 1769).

In 1748, during the conflict between England and Spain known as King George's War, Spanish forces attacked Brunswick. In the early evening of September 3, three Spanish sloops, including the 130-ton *Fortuna*, sailed into the Cape Fear River. The Spaniards entered the river guided by pilots taken hostage, with the intention of taking "the negroes that were at work" on Fort Johnston, then under construction. Being early on a Sunday, "few or none" of the Negroes were to be found at work on the fort, most having been taken to Brunswick Town. Realizing their mistake, the Spaniards forced the pilots to guide them to Brunswick Town. Four miles below the town the Spanish put ashore a large number of men for an attack. The Spanish sloops proceeded "till they anchored before the town." The people of Brunswick, taken completely by surprise, fled from the combined land and sea attack, leaving their town and several vessels in the harbor to be captured (Charleston (South Carolina) Gazette, October 31, 1748; Lee 1965:232; Green 1992:17; Powell 1968:66-67).

The inhabitants sent out an alarm for assistance. On Monday, the fifth, William Dry, captain of the local militia, organized "about 25 or 30 men" in an attempt to recapture the town. Most of the men were unable to arm themselves, however, since their guns and ammunition were captured in the attack, delaying any action for a day. The following day, Captain Dry, with reinforcements from the countryside, sailors and slaves, and a few more arms, led a counterattack on the Spanish, most of whom were busily looting the town. While the *Fortuna* shelled the town to cover the Spaniards retreat, one of the cannons aboard the vessel ignited a fire. The fire apparently spread to the magazine, for the vessel soon exploded violently. The remaining Spanish vessels fled downriver and out to sea (Charleston (South Carolina) Gazette, October 31, 1748; Boston Weekly News-Letter, October 20, 1748; Lee 1965:232-233; Green 1992:19-20).

Although the Brunswick colonists suffered major damage to their town, the Spanish had paid heavily for their raid. Nearly half of the Spanish force were killed, the invaders had lost the sloop *Fortuna*, and most of the plunder from the town went down with the vessel. Fortunately, the *Fortuna* had sunk in shallow water, and the inhabitants of Brunswick Town were able to salvage a considerable amount from the wreck (Boston Weekly News-Letter, October 20, 1748; Clark XXIII:535; Sprunt 1992:50; Lee 1965:234; Green 1992:20; Military Collections, N.C. State Archives).

The finest of the Brunswick Town residences was Russellborough, located just to the north of the town. Begun and named about 1751 by Capt. John Russell, an officer of the sloop *Scorpion*, then stationed at Brunswick Town to defend the river and its shipping, it was acquired and completed in 1758 by Gov. Arthur Dobbs, who renamed it Castle Dobbs. Governor Dobbs later sold or gave the dwelling to his son, Edward Bryce Dobbs, who conveyed it by deed to Arthur Dobbs's successor, Gov. William Tryon, on February 12, 1767. Governor Tryon moved into the vacant house he called Castle Tryon and remained until workers completed Tryon Palace at New Bern. The brick walls of St. Philips Church, begun about 1754, comprise the only extant structure from colonial Brunswick. The dimensions of the church have been described as being "76 feet 6 inches long, 53 feet 3 inches wide, standing walls 24 feet 4 inches high." "There are 11 windows and three large doors." In 1760 the North Carolina Assembly enacted a law stating that certain proceeds from the sale of goods recovered from the wreck of the Spanish sloop *Fortuna* be used to help finance the completion of St. Philips Church in Brunswick and St. James Church in Wilmington. After years of delay, St. Philips Church was finally completed in 1768 (Sprunt 1896:73-74; Sprunt 1992:59-60; South 1960:22-23, 51-54, 62; Lee 1978:55; Sauthier 1769; Collet 1770; Mouzon 1775).

With the growth of the newer port of Wilmington, the importance of Brunswick soon declined. The location of Brunswick farther downriver had afforded it little protection over the years from strong gales or hurricanes, while its proximity to low marshy areas provided malaria-carrying mosquitoes. Brunswick Town began a steady rate of decline following the 1748 Spanish attack, and by the onset of the American Revolution the last of the remaining residents had fled. In 1776 the British burned the deserted town. A few families returned to Brunswick following the war, but by 1830 the town was in total ruin.

Several years later the owner of Orton Plantation purchased the site of the former town for $4.25 (South 1960:87-89).

The ruins of Brunswick Town lay undisturbed for almost a century before the Confederate States Army ordered the construction of Fort St. Philip, named for the church located there. The fort, later renamed Fort Anderson, lay diagonally across the site and consisted of two five-gun batteries and small emplacements along the length of protective sand mounds. Confederate troops at the fort—housed in wooden barracks with chimneys made from stone and brick salvaged from the old ruins—guarded the Cape Fear River that led to Wilmington. Little activity occurred near the fort until Federal troops attacked Fort Fisher in late 1864. On February 19, 1865, a month after the fall of Fort Fisher, a severe bombardment by the Union navy forced the Confederates to abandon Fort Anderson. The fort was never reoccupied (Sprunt 1896:73-75; Powell 1968: 66-67; South 1960:58, 102-112).

Today historic Brunswick Town, Russelborough, and Fort Anderson are maintained as the Brunswick Town State Historic Site (Kitchin 1778; Holland 1794; Lewis 1795; Price and Strother 1808; Mac Rae and Brazier 1833; U.S. Coast Survey 1856; CSAE 1864c; U.S. Coast Survey 1864; USGS 1970a; NOAA 1992).

Wilmington (New Carthage, New Liverpool, New Town, Newton)

In 1731, six years after Gov. George Burrington granted Maurice Moore the site of Brunswick Town, John Maultsby and John Watson were each granted by the governor, 640 acres of adjoining property opposite the "Thoroughfare" near the confluence of the Cape Fear and Northeast Cape Fear Rivers. By late 1732 a few other men had settled on Maultsby's grant with the intention of carrying out trade along the rivers. In April 1733 James Wimble, one of those enterprising men, "Drafted and Layd out" on the east bank of the Cape Fear a settlement he called New Carthage. Other owners of adjcent property soon joined Wimble in enlarging New Carthage, at the same time changing the name to New Liverpool. "For the most part, however, residents of the area and especially those with ties to Brunswick Town referred to the new community simply as New Town, a name that was soon corrupted to Newton." Within the next few years the few inhabitants of the village chose to call their community Wilmington, after Spencer Compton, earl of Wilmington, and patron of royal Governor Gabriel Johnston, during whose administration the town was chartered. In 1740 the North Carolina Assembly passed an act formally designating the town as Wilmington. At that time Wilmington replaced Brunswick as the county seat of New Hanover (Stick 1985:25; Lee 1971:12-13; Sprunt 1896:15-16; Sprunt 1992:45-46; Powell 1968:537; Wimble 1733, 1738; Anonymous 1750; Mouzon 1775; Kitchin 1778; Holland 1794; Lewis 1795; Potts 1797).

Based on the first official plan of Wilmington adopted in 1745, the limits of the town included "Campbell Street on the north, Wooster Street on the south, Fifth Street on the east, and the river on the west. The area within those bounds was divided into squares separated by unpaved streets. The squares, in turn, were divided into lots uniform in size except for those that extended from Front Street to the river; those varied in depth according to the meandering of the shoreline." In 1769 C. J. Sautier produced a "Plan of the Town of Willmington" **(Figure 3)**. From the time of its incorporation in 1740, the government of Wilmington consisted of commissioners. After 1745 the number was fixed at five, elected annually by the townspeople. For a period in the 1760s Wilmington was a borough governed by a mayor (John Sampson served as the first mayor), a board of aldermen, and a common council. By 1768, however, the old commission system had been reinstated as the form of government until the Civil War (Lee 1971:12-13; Reaves 1977:3).

The early growth of Wilmington arose in part from the abundance of products obtained from the immense pine forests of the surrounding country. Naval stores in the form of tar, pitch, and turpentine, along with shingles, barrel staves, and lumber, were commonly produced along the Cape Fear River. In order for England to support its large maritime industry, the crown often granted subsidies to producers of naval stores within New Hanover County. "More pine tar, pitch, and turpentine were shipped to England from the port of Brunswick than from any other port in the British Empire" (Lee 1971:14-16).

Shipping and trade constituted the "lifeblood of the Cape Fear economy" and the majority of the commerce on the river passed through either Wilmington or Brunswick Town. Vessels that sailed to and from those two communities formed a trade network with other coastal ports, the West Indies, and points as far away as Europe. The vessels that entered the river varied in size, and this had an important bearing on the development of New Hanover County. The larger ships could not cross over the shoals known as The Flats, located just above Brunswick Town. As a result, Brunswick Town became the center of overseas shipping, while smaller vessels, generally those in the coastal and West Indian trade, proceeded over the Flats to Wilmington. All ships entering and leaving the river were required to clear at Brunswick Town (Lee 1971:16-17: Logan 1956:37-40).

Before the existence of passable roads, the local inhabitants purchased property along navigable streams, which they used for travel and to transport their goods to market. Some of the earlier craft used for the transportation of goods included rafts, flatboats, and small sailing vessels. As the availability of land along the banks of navigable streams decreased and the local population grew, inland roads were built to improve travel. These early roads, however, were generally little more than narrow clearings through the forests, sandy ruts in dry weather and quagmires in wet. Ferries facilitated travel between Wilmington and Brunswick Town. By 1764 an oar-propelled ferry transported wagons, coaches, and teams of horses and mules across the Cape Fear River from the foot of Market Street to Eagles Island. A crude road across the marshy island connected with a second ferry over the Brunswick River. On the western shore the road split, with one branch leading northward to Cross Creek (Fayetteville) and the other leading southward by way of Brunswick Town into South Carolina. There was

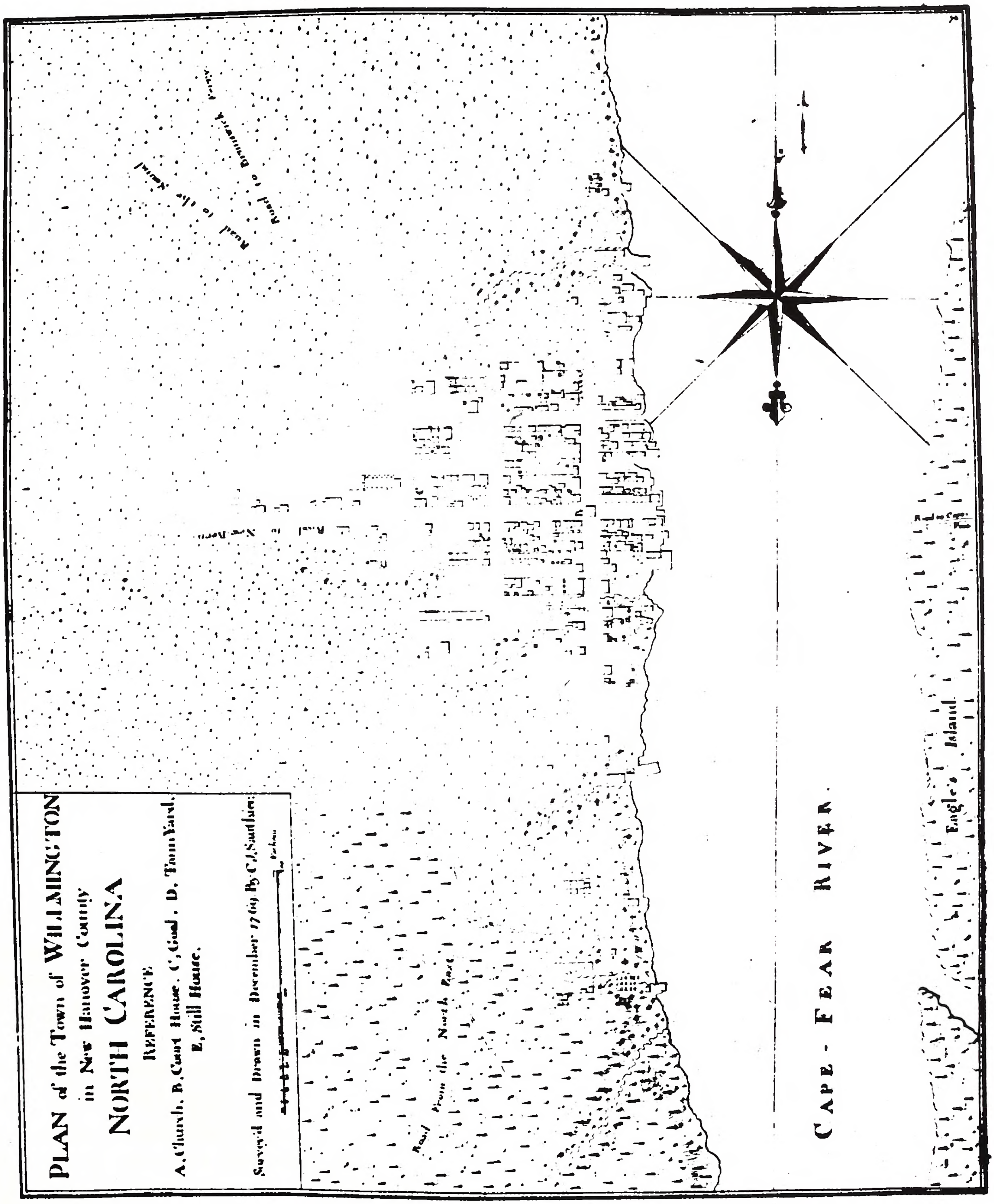

PLAN of the Town of WILLMINGTON
in New Hanover County
NORTH CAROLINA
REFERENCE
A, Church. B, Court House. C, Goal. D, Tann Yard.
E, Still House.
Survey'd and Drawn in December 1769. By C.J. Sauthier.
Road to the Sound
Road to Brunswick Ferry
Road to Newbern
Road from the North East
CAPE - FEAR RIVER.
Eagle's Island

Figure 3. Sautier 1769 Plan of the Town of Wilmington.

also a road that ran from Wilmington southward along the east bank of the Cape Fear to the Brunswick Ferry (Reaves 1977:3; Lee 1971:16-18).

News reached Wilmington on May 8, 1775, of the April 19 confrontation at Lexington and Concord between colonial militiamen and British soldiers and the start of the American Revolution. By the following summer the British had brought military action to the Cape Fear vicinity. In early May 1776 British forces under two generals, Sir Henry Clinton and Lord Charles Cornwallis, arrived at the mouth of the Cape Fear River. From their vessels the generals sent raiding parties ashore from time to time. The most destructive of those raids came against the nearly abandoned town of Brunswick and Kendall plantation. The British burned Brunswick Town and it was never occupied again (Lee 1971:26-27).

Following the raids along the lower Cape Fear, the generals and their troops left, and it was almost five years later before the British returned. In early 1781 a British detachment under the command of Maj. James Craig left Charleston by sea to secure Wilmington as a base for General Cornwallis's return. On January 9 Craig landed below Wilmington and moved in practically unopposed and occupied the town. A traveler through Wilmington earlier in the war had described the town as being "situated in a sandy Hollow surrounded with Sand Hills" from which the town could defend the river "by a Battery of 9 nine Pounders, & another of 8 Guns from 5 to 12 Prs . . . [and] also two Iron Field Pieces on traveling Carriages." Craig and his men disarmed the inhabitants of Wilmington, placed them on parole, and let them go about their business. The British then set about to strengthen the defensives against an attempt to recapture the town. On April 12 General Cornwallis arrived in Wilmington and briefly established his headquarters before he decided to continue his campaign in Virginia. Less than two weeks later, Cornwallis and his men marched out of Wilmington, leaving Major Craig in control of the town. Before the end of the year, Cornwallis had surrendered to Gen. George Washington at Yorktown, Virginia, and Major Craig's troops had fled Wilmington. No further British threat took place in New Hanover County before the end of the war in 1783 (Johnson 1959:379; Lee 1971:27-29; Reaves 1977:4).

The first federal census in 1790 indicated that New Hanover County (which then included what is now Pender County) had a population of seven thousand persons, including approximately one thousand individuals who resided in Wilmington. Many of the inhabitants of Wilmington continued to make their living as merchants, sea captains, seamen, or in other occupations related to trade and shipping following the war. The economy of the town returned to its prewar activities; naval stores, lumber, and other timber products continued to be the most important products, with only rice being a significant commercial crop. Before the Revolution most ships that left the Cape Fear River had cargoes destined for the West Indies. A lesser number of ships carried cargoes to coastal ports, especially in the northern colonies. The effects of hostilities with Britain drastically changed trade patterns. By 1783 almost all ships leaving the Cape Fear went to Charleston, South Carolina, where few had previously traded. The "Port of Brunswick" resumed trade with England following the war but never reached its prewar levels. Merchants offset their decrease in business with England by opening new markets in the northern United States, with Charleston, and with the West Indies. The number of ships that entered the Cape Fear River and proceeded up to Wilmington steadily increased. The significant growth of Wilmington as a commercial center was indicated when the name of the "Port of Brunswick" was changed to the "Port of Wilmington" (Lee 1971:33, 50-56).

Along with the expansion of trade came the need for improvements in land and water transportation. The roads that existed within New Hanover County remained crude and unpaved, while the vehicles for transporting goods were often inadequate in size and reliability. Rail service to Wilmington was still several years away. The main dependence continued to be on water transportation. In 1817 the first steamboat arrived on the Cape Fear River. Known as the *Prometheus*, the stern-wheel vessel had been built in Beaufort by Capt. Otway Burns for a firm in Wilmington to operate from Wilmington to both Fayetteville and Smithville (Southport). The following year a second shallow-draft steamboat, the *Henrietta*, also began service on the river, making runs between Fayetteville and Wilmington. Steamboat traffic was better suited to the Cape Fear than any other North Carolina river for two reasons. First, the seasonal fluctuation of the river was not as great as that of other rivers in the state and thus did not as seriously impede navigation. Second, many roads in the Piedmont already led to Fayetteville at the head of navigation on the Cape Fear. In 1818 James Seawall, builder of the *Henrietta*, organized the Clarendon Steamboat Company with exclusive rights to operate steamboats on the Cape Fear for a period of seven years. Other vessels made their appearance on the river, and in 1822 another steamboat line, the Cape Fear Steamboat Company, was incorporated. The arrival of several steamboats on the Cape Fear River marked the beginning of a new era for Wilmington commerce and a call for improvements in river navigation (Lee 1971:16-18, 36-38; Reaves 1977:5; Sprunt 1992:138-139; Logan 1956:82).

About 1819 the local Board of Internal Improvement hired Hamilton Fulton, an English civil engineer, to direct improvements to the river below Wilmington. In 1823, two years after completing the first detailed survey of the river, the board approved a plan submitted by Fulton for improvement of the river channel between New Inlet and Wilmington. The first serious attempt by the state at completing improvements in the navigation of the river yielded a gain of two feet in channel depth below Wilmington. The state lacked sufficient funds to conduct the mammoth task of improving the existing channel from Wilmington to the ocean, however, and by 1829 the federal government assumed the responsibility for the improvements to the river (Carolina Observer and Fayetteville Gazette, February 13, 20, March 20, August 7, 1823; Sprunt 1992:145).

In 1834 the state legislature issued a charter that authorized the construction of the Wilmington and Raleigh Railroad. Capital for the project was supposed to have been jointly provided between the two towns. When the people of Raleigh failed to raise their share of the funds, the charter was amended and the destination of the road changed from Raleigh to Weldon, on the Roanoke River, where it joined with other east coast lines. Construction began on the rail line in October 1836. When completed on March 7, 1840, near present-day Goldsboro, the 161½-mile track was the longest single line in the world. In 1855 the rail line officially changed its name to the Wilmington and Weldon Railway and subsequently became known as the Atlantic Coast Railroad. As Wilmington grew and became an important connection for north-south travel, other rail lines that extended into the western reaches of the state were added to the town. The several rail lines, along with steamer connections and the improving network of interior roads, brought increased trade and prosperity to Wilmington and New Hanover County (Lee 1971:38-40; Sprunt 1992:149-156).

The period of expanding trade and growth for Wilmington came to an abrupt end in 1861 with the beginning of the American Civil War. Because the South was predominantly agricultural, the Confederacy had to import much of its needs from abroad. Aware of this fact, Pres. Abraham Lincoln ordered a blockade of southern ports in 1861. As a means of avoiding the blockade and bringing in cargoes vital to the life of the South, the Confederacy developed blockade-runners, fast, sleek vessels to slip past the Union ships under cover of darkness. At the beginning of the war the South maintained important ports, including Norfolk, Charleston, Savannah, Mobile, and New Orleans, but none proved more important to blockade-running than Wilmington on the Cape Fear. Blockade-runners had access into the Cape Fear, and on to Wilmington, through entrances either at the mouth of the river or New Inlet. Union warships found it difficult to patrol and prevent access to blockade-runners through those entrances, which were located several miles apart. Rail lines that connected Wilmington to several other southern cities provided ideal opportunities for the handling of arriving or outgoing cargoes (Lee 1971:61).

When hostilities began in 1861, two existing fortifications protected the main entrance to the Cape Fear River. On April 16, 1861, four days before North Carolina seceded from the Union, Confederate forces seized Forts Johnston and Caswell. The aged Fort Johnston, constructed between 1748 and 1764, guarded the western shore of the river at Smithville. Later, the much larger and more heavily armed Fort Caswell, begun in 1825 on Oak Island, eclipsed Fort Johnston. By 1836 both forts had been evacuated. Reactivated briefly during the Mexican War, Fort Johnston was again abandoned in 1852. From that time until the eve of the Civil War, it was under the solitary care of an ordnance officer. Fort Caswell, covered in masonry and railroad iron, originally mounted sixteen guns but later added six others. Although Fort Caswell was engaged in little conflict during the Civil War, it played a crucial role in defending the river entrance, thus allowing blockade-runners to enter the channel (Hall 1975:237-239; Hall 1980:93; Sprunt 1992:379-380; Powell 1968:178-179; Herring and Williams 1983:13,21,48; USACOE 1865d; Angley 1990:7).

Confederate forces constructed two forts in 1861-1862 for the protection of New Inlet. Fort Fisher, the largest fortification along the Cape Fear River, was located on the tip of Confederate Point (now Federal Point). The fort was bounded on the west by the Cape

Fear River, on the east by the Atlantic Ocean, and on the south by New Inlet. The strategic placement of the fort at the southern end of the peninsula enabled it to guard both New Inlet and the river approach to Wilmington. Construction of Fort Fisher began in April 1861 under the direction of Capt. Charles P. Bolles. The other fortification constructed near New Inlet was Fort Anderson (originally known as Fort St. Philip), which stood on the western shore of the river on the former site of Brunswick Town. Fort St. Philip consisted of two five-gun batteries, designated as Battery A and Battery B, with smaller emplacements along the length of the fortification. Other smaller fortifications and batteries were placed for the defense of Wilmington and the two inlets along the Cape Fear (South 1960:79; Barrett 1963:247; Powell 1968:179; USACOE 1865a, b, g).

In late December 1864 Fort Fisher became the objective of a massive Union assault, which led to its capture and subsequently seizure of the other Cape Fear River defenses and ultimately Wilmington. Union control of the last remaining Confederate stronghold would seriously hamper the South's ability to fight and possibly bring about an end to the lengthy Civil War. After the first attempt to capture the fort failed, a second, larger, combined land and sea effort was undertaken the following month. Fort Fisher finally fell to Union forces on January 15, 1865. Within weeks of the capture of the main fortification, all other forts along the river were abandoned. In February 1865 Union forces easily occupied Wilmington. Unable to be adequately supplied, the southern forces surrendered a few months later, thus ending the war (Lamb 1896:371-377; Fort Fisher Master Plan 1974:57-58; Sprunt 1992:493-494; Trotter 1989:370,396).

In addition to the fortifications, Wilmington also provided for its own defense with the construction of two Confederate ironclad steamers. The Beery family built the *North Carolina* at its "Confederate Navy Yard" on Eagles Island, across from Wilmington, in 1862, and J. L. Cassidey and Sons built the other ironclad, the *Raleigh*, at its shipyard at the foot of Church Street the following year. The Confederates destroyed a third locally built ironclad, the *Wilmington*, to keep it from falling into enemy hands just prior to the occupation of the town in 1865. None of the ironclads was ever engaged in serious battle with the Union fleet, but their presence in the river did contribute to Wilmington's being one of the last major southern ports still open late in the war (Farb 1985:322; Shomette 1973:333,352-353; Hall 1980:339).

By early 1866, with the hostilities of war now months behind them, Wilmington residents began a period of reconstruction and sought to regain some of the benefits of their pre-war commerce and growth. One of the first successful efforts was political and came on February 20, 1866, when the North Carolina General Assembly granted a new charter changing the name from the town of Wilmington to the city of Wilmington. The charter also provided for a new system of government by a mayor and board of alderman. On the first election, held on March 8, the citizens elected A. H. Van Bokkelen the first mayor of the city. In the spring of 1868 the people of North Carolina adopted a new constitution for the state, and the following July the state was readmitted into the Union (Lee 1971:77-79).

Recovery in the postwar years came gradually as planters and other labor-intensive industries adapted to a new slaveless society. Naval stores and lumber continued to be the principal local exports, but cotton also found its way onto ships leaving the Cape Fear. Cotton shipped through Wilmington, in addition to that locally grown, also came from Georgia, South Carolina, and other parts of North Carolina. In 1871 Wilmington's cotton export, principally to northern ports, exceeded 95,000 bales—nearly half the amount for the entire state. Cotton remained an important local export until about 1930. Of the various prewar products, rice alone failed to make a postwar recovery. Because of insufficient labor, rice production almost ended in North Carolina by the end of the century. Naval stores, the principal local industry and export of Wilmington before the war, continued in large quantities. Tar, rosin, and turpentine production in southeastern North Carolina made Wilmington the leading exporter of naval stores in the world. The lumber industry continued to produce large amounts of timber products; staves of white or red oak; and shingles of cypress, juniper, and cedar. The timber exports went both to domestic and foreign markets, with most going to the West Indies and to Central and South America. By 1880, however, both industries were in decline. The vast local forests of pine had been noticeably depleted, and a general reduction in the number of sailing ships, which required naval stores in their construction and operation, had taken place. Wilmington's foreign imports consisted primarily of salt and iron from Europe and fruit and molasses and guano from the West Indies (Lee 1971: 86-87; Sprunt 1992:512; Logan 1956:96-97, 104-107).

The Port of Wilmington had remained open during most of the Civil War and, therefore, was quickly able to reestablish trade connections when peace returned. In fact, commerce with foreign countries was regained before that with northern ports. In 1872 the Wilmington Chamber of Commerce reported that both agricultural and manufacturing trade was "steadily and constantly increasing" and that improvements in Wilmington harbor would greatly hasten the growth by increasing the number and size of vessels calling at the city. According to the chamber, vessels drawing more than 12 feet were required to be lightered to and from a point outside the main entrance to the river. Improvements at the main bar, removal of obstructions in the river, and efforts to close New Inlet all had a positive effect on increasing the depth of water by several feet. Another improvement, the completion of the Wilmington, Charlotte, and Rutherford Railroad, which came in 1875, also benefited Wilmington's port trade. As predicted by the chamber of commerce's 1872 report, that measure played a key role in increasing the shipment of cotton from the port (Lee 1971: 86-87; Sprunt 1992:512-514; Logan 1956:99-100).

Several changes occurred in Wilmington's commerce by 1885. Foreign tonnage continued to grow. Ships engaged in Wilmington's foreign trade averaged about 400 tons per vessel. One prosperous area involved the increasing use of fertilizer, which led to a considerable import of raw materials such as potash, nitrates, phosphorus, and sulphur. Several guano plants opened in and around Wilmington after the Civil War, and by the 1880s nearly three-fourths of the value of Wilmington's foreign imports was in fertilizer material. The industry remained until after the turn of the century. By 1885 the city had two cotton compresses in operation, a new cotton seed oil factory, and two fertilizer plants. An important change in the cotton trade was that by then seven-tenths of the total amount was shipped to Europe, whereas ten years earlier almost four-fifths had gone to New England. This overseas demand for United States cotton created a greater need for deeper draft vessels to carry the commodity abroad and contributed to the need for improvements in the Cape Fear for deeper draft vessels (Logan 1956:107).

By 1910 the export of cotton from Wilmington had reached a peak. During that year more than four hundred thousand bales were exported. The economy of New Hanover County received another boost in 1917 when the United States entered World War I and shipbuilding facilities were established at Wilmington (Logan 1956:118). The U.S. Shipping Board in the summer of 1917 selected Wilmington as one of its sites for the fabrication of steel ships. A shipbuilding plant was subsequently erected in the vicinity of Sunset Park, south of the city. It was built and operated by the Shipping Board. Lorenzo C. Dilks, president of the Carolina Shipbuilding Company, signed a contract on April 17 for his company to construct twelve 9,600-ton steel cargo vessels. Four shipways, a ship-fabricating plant, a mold loft, and various other buildings were erected on the 100-acre site. The first of twelve steel ships to be readied for launch was the *Cranford*, named for Cranford, New Jersey, home of Mr. and Mrs. Dilks before moving to Wilmington. The steel-ribbed freighter, the first of its kind to be launched in Wilmington, left the shipway at the Carolina yard on Labor Day, September 1, 1919 (Wilmington Dispatch, April 17, 1918, September 2, 1919; Wilmington Star, April 19, May 30, 1918, September 1, 1919).

At the same time the Carolina Shipbuilding Company was building fabricated steel ships for the World War I effort, the Liberty Shipbuilding Company began building concrete vessels at the foot of Greenfield and Willard Streets. In April 1918 the U.S. Shipping Board selected Wilmington as one of the sites for a government yard. The government planned for seven concrete ships to be built at the city, with three to be 3,500 tons and four to be 7,500 tons. The larger vessels would be used as tankers with capacities of 50,000 barrels of oil. Each of the tankers would have 2,800-horsepower engines. The smaller, 3,500-ton vessels, would be cargo ships (Wilmington Dispatch, February 10, March 28, April 6, June 6, 1918; Wilmington Star, April 6, 1918).

A change in the plans for the types of ships to be constructed at the shipyard occurred in late 1918. The Liberty Shipyard would not build six of the larger, 7,500-ton tankers, but rather only two 3,500-ton cargo vessels of concrete. The signing of the Armistice and cessation of World War I activities made the additional vessels unnecessary (Wilmington Dispatch, November 22, 1918). The Liberty Shipyard, at the foot of Greenfield Street, was nearly complete by late January 1919 (Wilmington Star, January 25, 1919). Pouring of the first concrete vessel, or "stone ship," to be called the *Rockmart*, began on January 28, 1919 (Wilmington Dispatch, January 27, 28, 1919; Wilmington Star, January 29, 1919). In June 1919, at the request of the Wilmington

Chamber of Commerce, the name of that vessel was changed to the *Cape Fear*. All preparations for the launch of the vessel were completed in July, and on July 31, 1919, the hull of the *Cape Fear* slipped sideways into the river (Wilmington Dispatch, February 20, June 15, 1919; Wilmington Star, August 1, 18, 1919).

It was during that period that the last two of the large wooden schooners were built in Wilmington. The Wilmington Iron Works received, just prior to the United States' involvement in the war, a contract to build two four-masted schooners—the *Hoppauge* and the *Commack*—at its marine railway, the "Naul yard," on Eagles Island (Wilmington Star, May 18, 1916; Wilmington Dispatch, May 17, 1916). The *Hoppauge* was afloat only a short time before it fell victim to a German submarine in early 1918 (Wilmington Star, June 7, 1918; Wilmington Dispatch, June 9, 1918). The *Commack* ended its career when it was wrecked off Sandy Hook, New Jersey, in January 1925 (Wilmington News-Dispatch, February 2, 1925).

Following World War I Wilmington's foreign trade increased over that from the prewar years. By 1925 fertilizer constituted about 90 percent of the imports, with cement and molasses making up the remaining 10 percent. Cotton now constituted nearly all of the Port of Wilmington's exports. In that year more than one hundred thousand bales of cotton were shipped. Just prior to 1930, however, the market for cotton in Europe started to decline as a result of high tariffs on imported manufactured goods. European manufacturers sought other markets, and fewer foreign ships arrived in the United States. Consequently, the exchange of manufactured goods for raw materials such as cotton declined. Along with a decline in the production of cotton came the lack of dependence on fertilizers. That import also began its decline during this period. The export of tobacco partially compensated for that decline. Although tobacco greatly increased the value of Wilmington's exports, its tonnage was in no way comparable to that of cotton in previous years. What emerged by 1935 as Wilmington's greatest import was petroleum products, making up 80 percent of coastwise receipts. Fish and fertilizer made up the remaining 20 percent. Wilmington then imported nearly four times as many goods as it exported (Logan 1956:125-127).

North Carolina commerce, and particularly that of Wilmington, suffered another setback when the United States entered another world war in December 1941. In the early years of the conflict, Atlantic shipping suffered severe losses to German U-boat warfare. Numerous cargo ships that crossed the ocean or traveled without armed escort between eastern ports fell prey to this form of destruction. Such losses were greatly reduced when trans-Atlantic conveys under the protection of U.S. warships were established later in the war. Wilmington's restricted commerce caused by the war was partially offset by the city's being once again selected as the site of wartime shipbuilding.

As early as 1938 local citizens of Wilmington were requesting the aid of their state senators in securing ship construction at local shipyards as a means of furthering economic recovery. The city organized the Shipyard Committee of Wilmington in 1939 or early 1940. On the recommendation of Adm. Emory S. Land, the U.S. Maritime Commission chose Wilmington as one of the sites for construction of two hundred emergency cargo vessels. The Newport News Shipbuilding Company assumed responsibility for building ships at Wilmington under a subsidiary known as the North Carolina Shipbuilding Company (Wilmington News, May 4, 1938; Wilmington Star, January 10,1941; Still n.d.:2)

The site chosen for the shipyard was the old Carolina Shipyard property 3 miles south of the city. Two types of vessels were constructed at the yard during the war. The first was officially designated as the EC-2 type and became well known as the "Liberty Ship." The North Carolina shipyard produced one hundred twenty-six of this class of vessel. The first Liberty Ship to leave the ways of the North Carolina Shipbuilding Company yard was the SS *Zebulon B. Vance*, launched on the ominous date of December 6, 1941 (Wilmington Star, January 10, April 3, 5, 23, October 2, December 6, 1941; Wilmington News, May 22, 29, 1941; Still n.d.:4-5).

The Wilmington yard also constructed a second vessel class, the C-2, or "Victory Ship." The North Carolina Shipbuilding Company produced 117 vessels of the C-2 type. It was hoped that this type of vessel could be used as merchant ships following the war. (Wilmington Star, April 3, 5, 23, 1941; Wilmington News, May 22, 29, 1941; Still n.d.:4-5). The Newport News Shipbuilding Company closed the North Carolina Shipbuilding plant in Wilmington in 1946 after five years of wartime operation. Many of the shipways and docks were destroyed following the war to make way for oil storage tanks and the North Carolina State Port Terminal.

The trade that Wilmington lost during the war years began to make a comeback in 1945. Foreign imports still exceeded exports, although the difference was less than it had been ten years earlier. Tobacco leaf remained the important overseas export trade, while fertilizer still dominated as the leading overseas import. Coastal shipping in 1945 was made up entirely of petroleum products and accounted for half the total commerce of Wilmington (Logan 1956:130). Wilmington received a needed boost in its commerce in 1945 with the creation of the North Carolina State Ports Authority, with terminals at Wilmington and Morehead City. The state docks opened in 1954. By 1970 the U.S. Army Corps of Engineers had provided a channel depth of 38 feet to accommodate large-draft vessels calling at Wilmington. The existing Corps of Engineers Federal Project at Wilmington Harbor is authorized to maintain a main channel of 40 feet deep and 500 feet wide from the Atlantic Ocean through the ocean bar and entrance channels, although this depth has not yet been achieved (Lee 1971:91-93; USACOE report 18 September 1992).

Southport (Smithville)

In the early eighteenth century the area on the west side of the Cape Fear River near the main entrance was uninhabited and perhaps only occasionally visited by crews of passing ships. In the vicinity of what would much later become Southport, the deepest part of the Cape Fear River flowed along the western shore and around the eastern end of Oak Island. That location, somewhat protected from the winds and tides that came in through the mouth of the Cape Fear, provided for a relatively safe environment for vessels to anchor. Some of the first ships to take advantage of that harbor to make repairs or to ride out a storm were pirate ships that operated along the eastern coast. In the late summer of 1718, Stede Bonnet, known as the Gentleman Pirate, entered the Cape Fear River aboard the sloop *Royal James* along with two captured vessels. While off the coast of North Carolina, the *Royal James* sprang a leak and needed immediate repair. After anchoring within the river, Bonnet and his crew of pirates discovered that the hull of the sloop needed several new planks; so they captured a small vessel that sailed by, put its master and crew ashore, and broke the ship up for its timbers. During the two months that it took for the repairs to be made, word of the presence of the pirates in the Cape Fear River reached the governor of South Carolina. The governor dispatched two ships under the command of Col. William Rhett to the Cape Fear to capture the pirates. A brief battle ensued near the mouth of the river, and Bonnet and his men were taken prisoner. In November 1718 Bonnet and thirty-four of his fellow pirates were tried in Charleston, South Carolina. All were found guilty and sentenced to death by hanging. Tradition holds that Bonnet's Creek at present-day Southport was the site of the pirate's battle with William Rhett (Carson 1992:19; Wilmington Star-News, July 4, 1975).

Permanent settlement along the Cape Fear did not take place until after 1723, when George Burrington became governor of North Carolina and began granting individuals tracts of land along the river. On June 3, 1725, Governor Burrington granted to Maurice Moore 1,500 acres of land on the west side of the Cape Fear River. It was on that land that Moore set aside 320 acres for the town of Brunswick. Six years later, in 1731, John Maultsby and John Watson were each granted 640 acres of adjoining property near the confluence of the Cape Fear and Northeast Cape Fear Rivers. It was from this beginning that the town of Wilmington developed (South 1960:1-2; Powell 1968:66-67; Moseley 1733; Sprunt 1992:45-46).

The inhabitants of Brunswick and Wilmington felt vulnerable without an adequate means of defense as hostilities between England and Spain escalated. In response to Spanish attacks along the coast of the North Carolina colony in the 1740s, the colonial legislature empowered Gov. Gabriel Johnston to appoint a council on the defense of the Cape Fear. By 1745 continued fears of Spanish attack along the Cape Fear River prompted the colonial assembly and the governor to authorize a defensive installation to be built near the entrance to the river, where Southport is today. The site, selected by Johnston himself and a group of prominent political leaders and referred to as "Johnston's Fort," was to be large enough for twenty-four cannons and was to be financed by powder money collected at Port Brunswick. Construction did not begin on Fort Johnston until 1748 and continued with several delays and improvements until 1764. The fortification was still under construction and consequently of little use when the Spanish attacked Brunswick Town in 1748. In the year following the attack on Brunswick, the defenders declared that Fort Johnston was finished, although it mounted only four rusty cannons. In 1751 the fort received a new status as a quarantine station for vessels arriving at the river from southern ports (Carson 1992:20-22; Powell 1968:179; Sprunt 1992:52-55; Angley 1990:1-2, 4).

The defenses of Fort Johnston increased over the next few years, but the fort saw no other activity until the American Revolution. As the rebellion intensified during the summer of 1775, royal Governor Martin fled from the Governor's Palace in New Bern and went to Fort Johnston for protection. Martin did not remain at the fort long and soon moved on to a British warship in the harbor. In mid-July 1775 a whig force of approximately five hundred armed men led by Robert Howe moved downriver from Brunswick Town and attacked the British fort. Fearful that the fort would be used as a staging area for attempts to seize private property and incite slaves against their masters in the lower Cape Fear River, the colonists burned Fort Johnston and its ancillary structures, except for the Garrison House. With the abandonment of Fort Johnston, the Cape Fear River was left defenseless during the Revolution (Carson 1992:20-22; Powell 1968:179; Sprunt 1992:52-55; Angley 1990:1-2, 4).

Encouraged by the presence of river pilots residing near Fort Johnston since before the Revolution, the General Assembly in 1784 enacted legislation providing for each licensed pilot to be allotted one acre of land for residential use. In 1792 the General Assembly formally enacted "An Act to lay off and establish a town near Fort Johnston." The town was incorporated as Smithville, (named for Benjamin Smith) and included 150 acres, which incorporated the destroyed fort and pilots' places of residence. In March 1794 Congress enacted legislation to provide again for the defense of the lower Cape Fear. In July 1795 the state of North Carolina conveyed the site of the old fort and portions of the town of Smithville for construction of a new fort (Carson 1992:24, Appendix A; Sprunt 1992:544; Angley 1990:5-6).

Construction of a new Fort Johnston began in 1804 over the ruins of the old fort, but lengthy delays prevented the completion of the facility for several years. Not until 1816 was work nearly complete at the fort. Facilities at that time included a battery of eight guns, a blockhouse, a guardhouse, a hospital, a group of buildings for enlisted men, and the still-extant Garrison House or officers' quarters. Fort Johnston was soon eclipsed by the much larger and more heavily armed Fort Caswell, begun in 1825 on Oak Island. By 1836 both forts were evacuated, however. Fort Johnston, reactivated briefly during the Mexican War, was again abandoned in 1852 (USACOE 1865d; Angley 1990:7; Carson 1992:29).

The growing community of Smithville received a boost in 1808 when the General Assembly decided to remove the county seat of Brunswick from Lockwood Folly to Smithville as soon as a courthouse, jail, and stocks could be built. The original courthouse, a one-story brick building, was removed from its lot so that in 1826 a larger two-story courthouse could be constructed. By the 1850s the second courthouse was torn down and an even larger brick building put up in its place (Carson 1992:31).

Smithville also benefited in March 1808 when Secretary of the Navy Robert Smith issued a contract to Amos Perry for the construction of three gunboats at the town. The first, gunboat *No. 166* (renamed *Alligator* during the War of 1812), was launched on the first day of April 1809. Gunboat *No. 167* followed within a few months and was launched at Smithville on September 19, 1809. The first two vessels, although nearly complete, were placed "in ordinary" for twenty-seven months awaiting blacksmiths, top timber, iron, and other supplies. The third vessel, gunboat *No. 168*, was "nearly as forwards as No. 166" by that time. When the navy commander for the southern district inspected the gunboats, he determined that they were more like pilot boats than gunboats and were too small for the duty they were expected to perform. Modifications and other problems, including a lack of funds, delayed the relaunching of the gunboats until 1811. When the vessels were reactivated in the fall of 1811, the best of the three, gunboat *No. 168*, was transferred to St. Mary's station in Maryland. The other gunboats at the Wilmington station were decommissioned after the war and sold (Moseley n.d.:19; Smith 1994:32-34).

In 1817 the first steamboat, *Prometheus*, arrived on the Cape Fear River. On June 20, 1818, the steamboat made its first run from Wilmington to Smithville, covering the distance in about four hours. The fare was one dollar each way. During Pres. James Monroe's visit to Wilmington in April 1819, he was treated to an excursion aboard the *Prometheus* from Wilmington to Smithville. By 1820 the population of Smithville had reached about three hundred with an additional two or three hundred part-time residents during the summer months. Three decades later the population had risen to nearly fifteen hundred, made up nearly evenly of black and white citizens. The major occupations then listed for the Smithville District of the county included: ship's carpenters, boatbuilders, fishermen, mechanics, tavern keepers, wheelwrights, blacksmiths, coopers, turpentine makers, masons, pilots, and farmers (Carson 1992:34, 38).

On April 16, 1861, four days before North Carolina seceded from the Union, Forts Johnston and Caswell were seized by the Confederate forces. Initially Fort Johnston served as a center for training and recruitment. Later only a small garrison served at the fort, which saw no major military action. The key defensive fortification on the lower Cape Fear region was Fort Fisher, and when it finally fell to Union forces on January 15, 1865, the remaining defensive forts along the river, including Fort Johnston, were abandoned by Confederate troops. A small garrison remained at Fort Johnston from the end of the war until 1881, at which time the last troops were removed. The name Fort Johnston was changed for a short duration during the war to Fort Pender, to honor Gen. William Dorsey Pender, who was killed in the battle of Gettysburg (Bragg 1865a; Angley 1990:8-9; Reaves 1978:44; Wilmington Star, July 19, 1970).

During the Civil War, Smithville housed many of the pilots who routinely ran the blockade to bring supplies into the Confederacy. Their skill and knowledge of the river and entrance channels contributed significantly to the success of blockade-runners. Salt, vital to maintaining the armies of the Confederacy, could no longer be brought in from northern states, and the South was forced to produce its own supply. Several salt works were built in Smithville, along the Elizabeth River, and on Dutchman Creek just west of town. In 1862 during the yellow fever epidemic in Wilmington, many of that city's residents fled to Smithville to escape the outbreak (Carson 1992:44-47).

Commerce in Smithville and the surrounding lower Cape Fear region began to revive as early as 1866. With the end of the conflict, naval stores were once again manufactured and cotton cultivated for market and shipment from Wilmington. The wharves of Smithville once again began to boom as all kinds of vessels made stopovers on their way to and from Wilmington. The 1870 federal census indicated that the village of Smithville then contained 133 houses, 151 families, and a total population of 810 persons. Most of the listed occupations were related to the river. When the U.S. Lifesaving Service established stations along the coast at Oak Island and on Bald Head Island, it created employment for many of Smithville's men (Carson 1992:51, 53-54).

The small postwar resort and fishing village centered at Fort Johnston continued to prosper. By 1880 northern businessmen interested in the potential of the region promoted plans for combining river transportation and railroad service to make the town into a major southern port. On March 4, 1887, the name of the town of Smithville was officially changed to Southport as a part of that cooperative effort. The charter of the town of Smithville, granted by the General Assembly in 1792, was amended as to delete the name of "Smithville" wherever it occurred in the charter and to insert Southport in lieu thereof. Although the venture never materialized, the town did acquire telegraph lines, kerosene street lamps and a coaling dock for steamships. The citizens later petitioned their county representative for an act to incorporate the town of Southport into the city of Southport, which was achieved in April 1889 (Reaves 1990:1; Carson 1992:58,65; "Smithville" Lewis 1795; Potts 1797; Price and Strother 1807, 1808; USACOE 1827; Mac Rae and Brazier 1833; U.S. Coast Survey 1851, 1853, 1864; 1857b, 1858, 1859b; Colton 1861; CSAE 1864c, 1864d; New York Herald 1865; U.S. Coast Survey 1866, 1872; USACOE 1876a; Kerr and Cain 1882; USCGS 1886; "Southport" USCGS 1888; USACOE 1891b; USCGS 1901b; USGS 1990; NOAA 1992).

Near the end of the century the Wilmington and Southport Steamboat Company, aided by the town's improvements, began a long career of daily runs from Wilmington to Southport with stops at all the lower Cape Fear landings. The line operated three steamers, the *Wilmington,* the *City of Southport,* and the *Madeleine*, which carried freight, passengers, and the U.S. mail. The line connected with the New Hanover Transit Company for service to Carolina Beach. Under the ownership and command of Capt. John W. Harper, the steamer *Wilmington* continued service until the late 1920s (Wilmington Star, December 14, 1909; UAU files; Sprunt 1992:546).

In 1911, after many years of "dreaming, dashed hopes, and speculation," a railroad line—the Wilmington, Brunswick and Southern Railroad Company (WB&S Railroad)—became a reality in Southport. The 30-mile-long railroad carried passengers, mail, and freight daily between Southport and Navassa, where it connected with the Atlantic Coast Line and the Seaboard Air Line Railroads for Wilmington or for other points along the lines. By that time, menhaden fishing had become a major industry for Southport. Menhaden were processed for the oil used in the manufacture of paints, linoleum, tanning solutions, soaps, and waterproof fabrics. Dried scrap was used for fertilizer and for feed for cattle, poultry, and swine. Two processing factories were erected on the river above the town (Lee 1971:95; Carson 1992:90, 96; Sprunt 1992:546).

Before 1915 transportation between Wilmington and Southport had been limited to travel on the river or by rail. During that year, however, construction began on a road along the Cape Fear River from Southport to Wilmington, which became known locally as the "River Road" or the "Shell Road." Southport played a minor role during World War I, mainly providing men and supplies to Fort Caswell and the Wilmington shipyard's. By the 1920s Southport entered a short but prosperous period. The WB&S Railroad was still in operation in 1923, but it never fulfilled the great expectations envisioned by the residents of Southport. The construction of new bridges and an improved highway made the rail line unprofitable. Passenger service ended in 1933, and the freight service ceased in 1938 (Carson 1992:100,108-114).

The high demand for laborers and clerical personnel as a result of World War II created numerous job opportunities for the residents of Southport. As it had during the previous war, Southport again provided workers for the Wilmington military shipyards during the 1940s. Increased submarine activity along the North Carolina coast prompted the U.S. Navy to reactivate old Fort Caswell as a submarine-tracking station. The navy also used the fort as a training and communications center. Troops remained stationed near Southport and patrolled the coast until the end of the war. Southport would never again be the quiet fishing village of its prewar days, although a charter boat and sports-fishing industry did develop in the town following the war (Carson 1992:126, 131-133).

1n 1950 the federal government sold Fort Caswell to the North Carolina Baptist State Convention for use as a religious retreat and conference center. The worst hurricane of the century struck Southport on October 15, 1954, destroying all of the town's fuel docks and shrimp-packing houses and damaging most of the waterfront structures. In late October 1952 the U.S. Army Corps of Engineers and Transportation Corps began construction on the Sunny Point Army Terminal. Today this installation which opened in 1955 for the handling of ammunition, is known officially as the Military Ocean Terminal at Sunny Point (MOTSU). The Sunny Point installation provided a great boost to the economy of Southport and Brunswick County and presently provides employment, or related income, to many of the residents of Southport. In 1966 the state of North Carolina began ferry service across the Cape Fear River between Fort Fisher and Southport. The Brunswick County Courthouse was moved from Southport to Bolivia in 1975 (Carson 1992:135-136).

Geographic Names

Several of the historic and current geographic names along the lower Cape Fear River have been identified and briefly described **(Figures 4,5,6,7)**. Information on the location and history of rivers, creeks, shoals, islands, and a variety of other features listed provide the earliest known use of the name, generally based upon the first occurrence in maps. Many of the geographic names have changed or have varied in spelling during their usage. When known, the changes have been noted.

RIVERS

There are four rivers located within the project area. A description for each of the following is given below.

Cape Fear River
Northeast Cape Fear River
Brunswick River
Elizabeth River

Cape Fear River (Sapona, Rio Jordan, Charles, Clarendon, The Thoroughfare)

The Cape Fear River is formed by the junction of Deep and Haw Rivers on the Chatham-Lee county line. From there the Cape Fear flows south-southeastward through several counties, including Brunswick and New Hanover, and empties into the Atlantic Ocean 5 miles northwest of Cape Fear. The waterway, including the Deep River, its longest tributary, has a total length of 320 miles and a total drainage basin of approximately 9,140 square miles. At Wilmington the river is 600 feet wide. Its width increases gradually downstream to one mile at a point just below the mouth of the Brunswick River; thence, to the ocean, it varies from one mile to 2¼ miles. Below Wilmington the river is a tidal estuary 28 miles long, with an incremental drainage area of nearly 350 square miles. The average tidal range is approximately 4 feet (USACOE 1977:14; USACOE 1989:28).

Prior to European exploration the river was known to Native Americans as the Sapona. The first exploration of the lower Cape Fear region of North Carolina was thought to have occurred during 1526 by the expedition of the Spanish explorer Lucas Váquez de Ayllón. Ayllón apparently entered the mouth of the river, which he referred to as the Rio Jordan. In 1662 a group from Massachusetts under the leadership of William Hilton made an attempt at settlement on the Cape Fear River. Twenty miles from the mouth of the river (which they called the Charles), members of the Hilton colony chose a site they called Charles Town; but were forced to abandon that settlement the following year. In 1664 another group from Barbados, under the leadership of John Yeamans, occupied the site but likewise abandoned it in 1665 (Powell 1968:87,99,107; Angley 1983:1-4; Herring and Williams 1983:4; Sprunt 1992:6; Hall 1980:xix).

Sometime after 1664, when the Lords Proprietors of Carolina formed Clarendon County, the waterway became known as the Clarendon River. Named for Edward Hyde, earl of Clarendon, one of the Lords Proprietors, the Clarendon first appears on the

John Ogilby (1672) map. The Clarendon waterway later appeared on the Joel Gascoyne (1682), Philip Lea (1695), John Lawson (1709), and Herman Moll (1729) maps.

On the maps by Joel Gascoyne and Philip Lea, the river is labeled as both the Cape Fear and Clarendon. This indicates the earliest usage of the name Cape Fear to apply to the river, which apparently retained the name Clarendon. The first illustration to show the river labeled only as the Cape Fear was the Edward Moseley map (1733). Both the West Branch and East Branch (Northeast River) of the river are shown. For many years the main route (West Branch) of the Cape Fear was what is now known as the Brunswick River, on the west side of Eagles Island. Contemporary accounts state that vessels of more than 50 or 60 tons could not go beyond 6 or 8 miles above the first permanent settlement of Brunswick Town but that small craft were able to ascend as much as 20 or 30 miles (Pennsylvania Gazette, April 29-May 6, 1731).

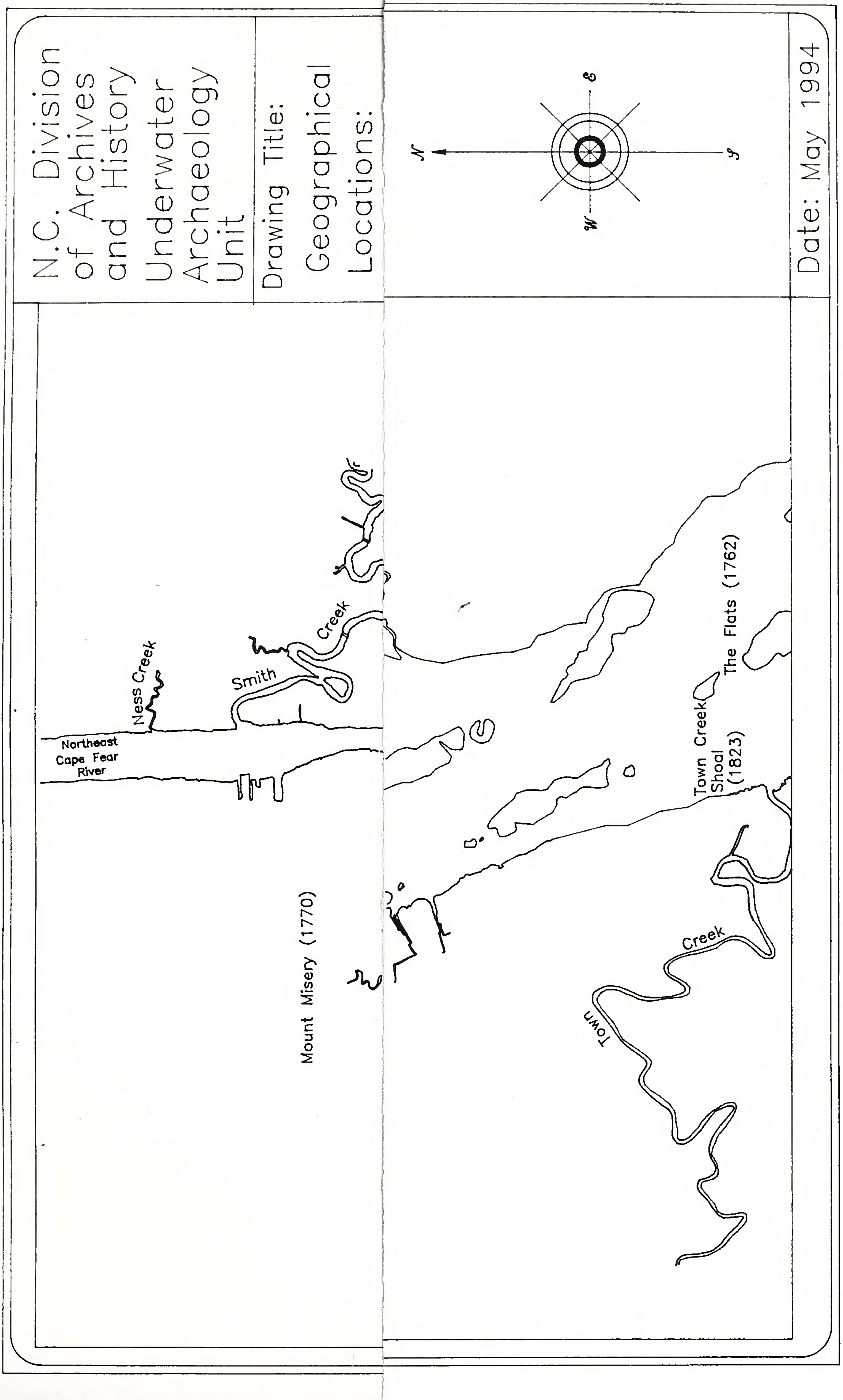
As early as 1750 an anonymous city plan of Wilmington showed the Cape Fear River west of Point Peter as the "Thorough-fare." Similarly, that section of river was shown on the A. C. Dickinson map (1848) as the "North West or Thoroughfare." In the late nineteenth century, local historian James Sprunt gave the following explanation for the name:

> That portion of the river which runs from the Northeast branch by Point Peter, or Negrohead Point, as it is called, to the Northwest branch at the head of Eagles' Island, is called in the old deeds and statutes of the State the 'Thoroughfare,' and sometimes the 'Cutthrough' from one branch to the other; and the land granted to John Maultsby, on which a part of Wilmington is situated, is described as lying opposite the mouth of the 'Thorough-fare' (Sprunt 1992:14; Dickinson 1848).

Since the late nineteenth century, the rivers have simply been called the Cape Fear and Northeast Cape Fear Rivers, while the old Northwest Branch is called the Brunswick River.

Northeast Cape Fear River (East Branch)

The Northeast Cape Fear River begins in northwest Duplin County about 2 miles south of Mount Olive. It flows generally south-southeastward through several counties for approximately 130 miles until it joins with the Cape Fear at Point Peter across from Wilmington in New Hanover County. The Northeast Cape Fear River appears as "Ye East Branch" on both the Gascoyne (1682) and Lea (1695) maps. On the Moll map (1729) the rivers are confusingly shown as "The Northwest Branch" (Northeast Cape Fear River) and the "West Branch" (Cape Fear River). Two years later a traveler to the region gave this account: "This river [the Cape Fear] divides about 10 Miles above the Town [of Brunswick]: the main Branch, which is by far much the largest, and runs by far the longest Course, is called the Northwest; and the other Northeast. . . ." The same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Northeast Cape Fear River
Ness Creek
Smith Creek
Mount Misery (1770)
The Flats (1762)
Town Creek Shoal (1823)
Town Creek

Figure 4. Geographical Location

John Ogilby (1672) map. The Clarendon waterway later appeared on the Joel Gascoyne (1682), Philip Lea (1695), John Lawson (1709), and Herman Moll (1729) maps.

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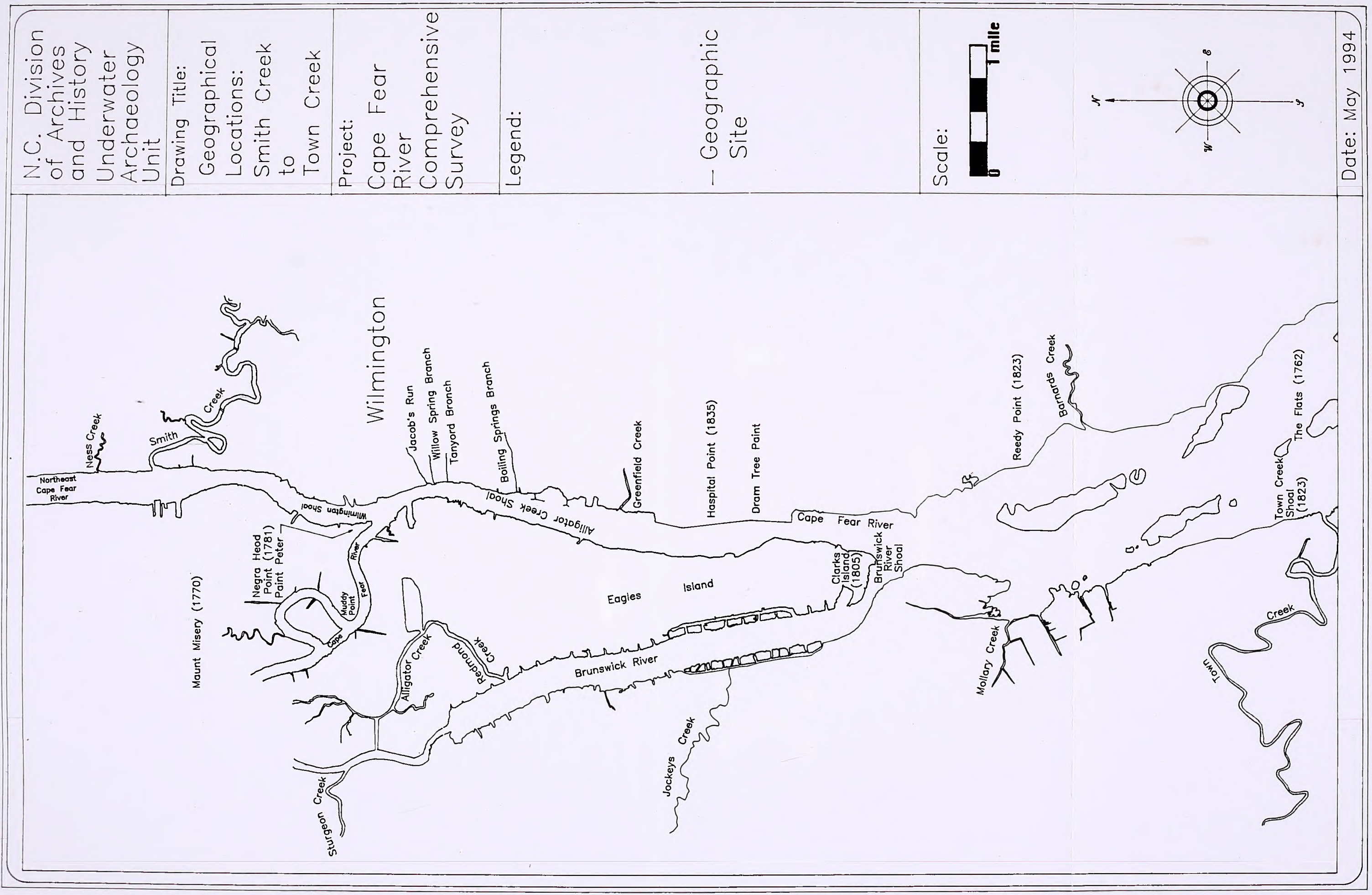
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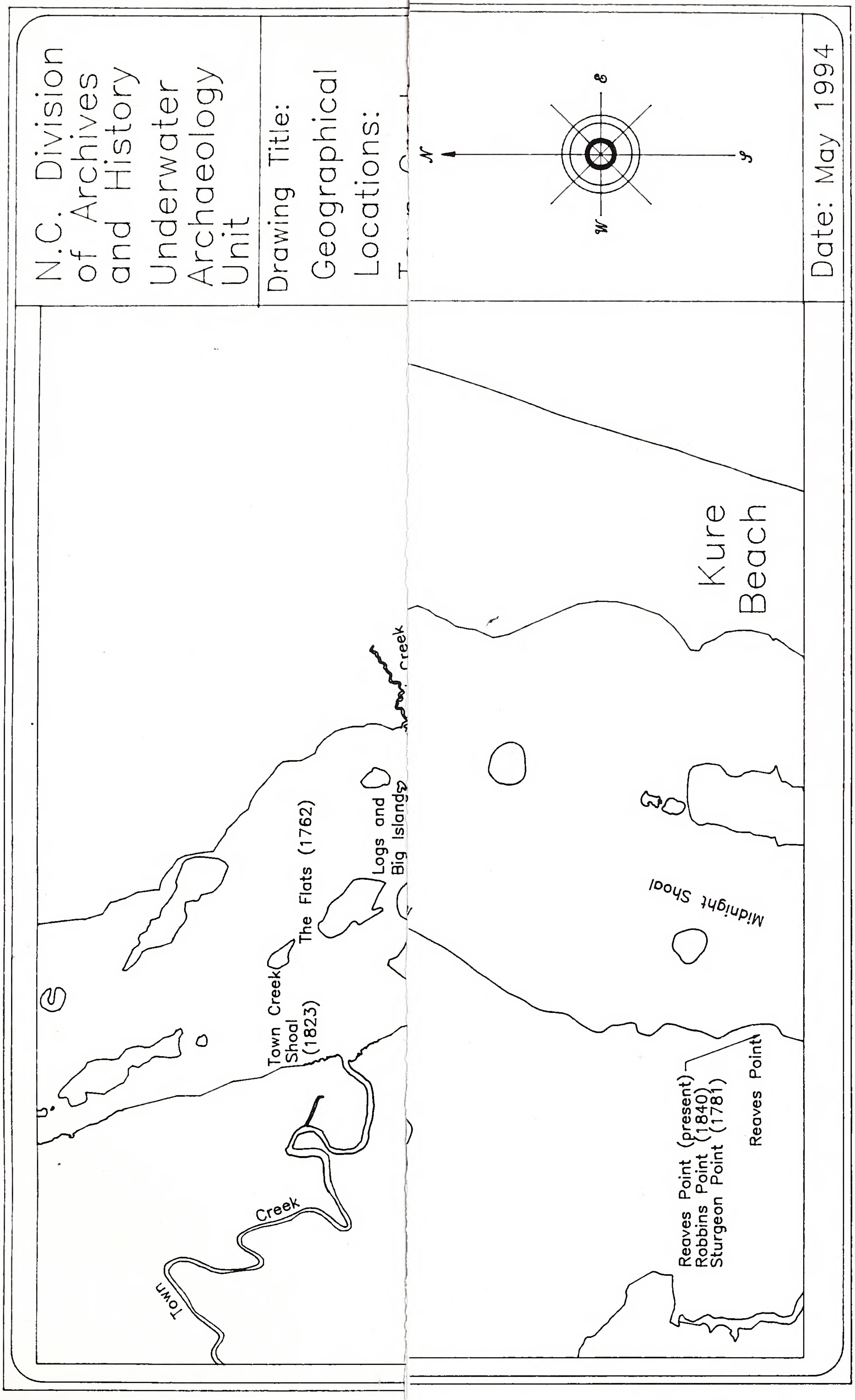
Northeast Cape Fear River
Ness Creek
Smith Creek
Wilmington
Wilmington Shoal
Jacob's Run
Willow Spring Branch
Tanyard Branch
Boiling Springs Branch
Alligator Creek Shoal
Greenfield Creek
Hospital Point (1835)
Dram Tree Point
Cape Fear River
Reedy Point (1823)
Barnards Creek
The Flats (1762)
Town Creek Shoal (1823)
Negro Head Point (1781)
Point Peter
Mount Misery (1770)
Muddy Point
Cape Fear River
Eagles Island
Clarks Island (1805)
Brunswick River Shoal
Alligator Creek
Redmond Creek
Brunswick River
Jockeys Creek
Sturgeon Creek
Mollary Creek
Town Creek

Figure 4. Geographical Locations: Smith Creek to Town Creek.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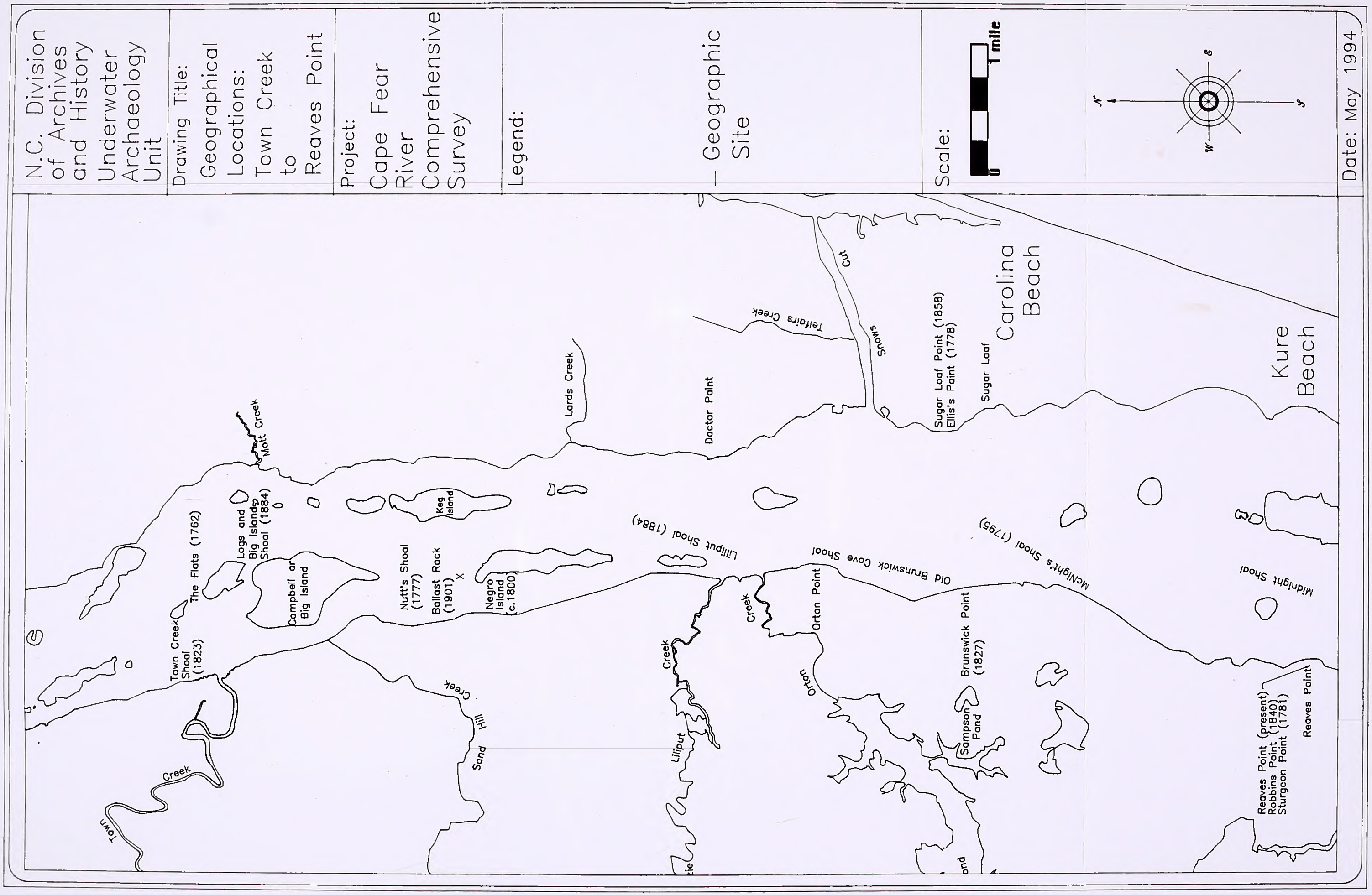
Kure Beach
Creek
Logs and Big Islands
The Flats (1762)
Town Creek Shoal (1823)
Midnight Shoal
Reaves Point (present)
Robbins Point (1840)
Sturgeon Point (1781)
Reaves Point
Town Creek

Figure 5. Geographical Location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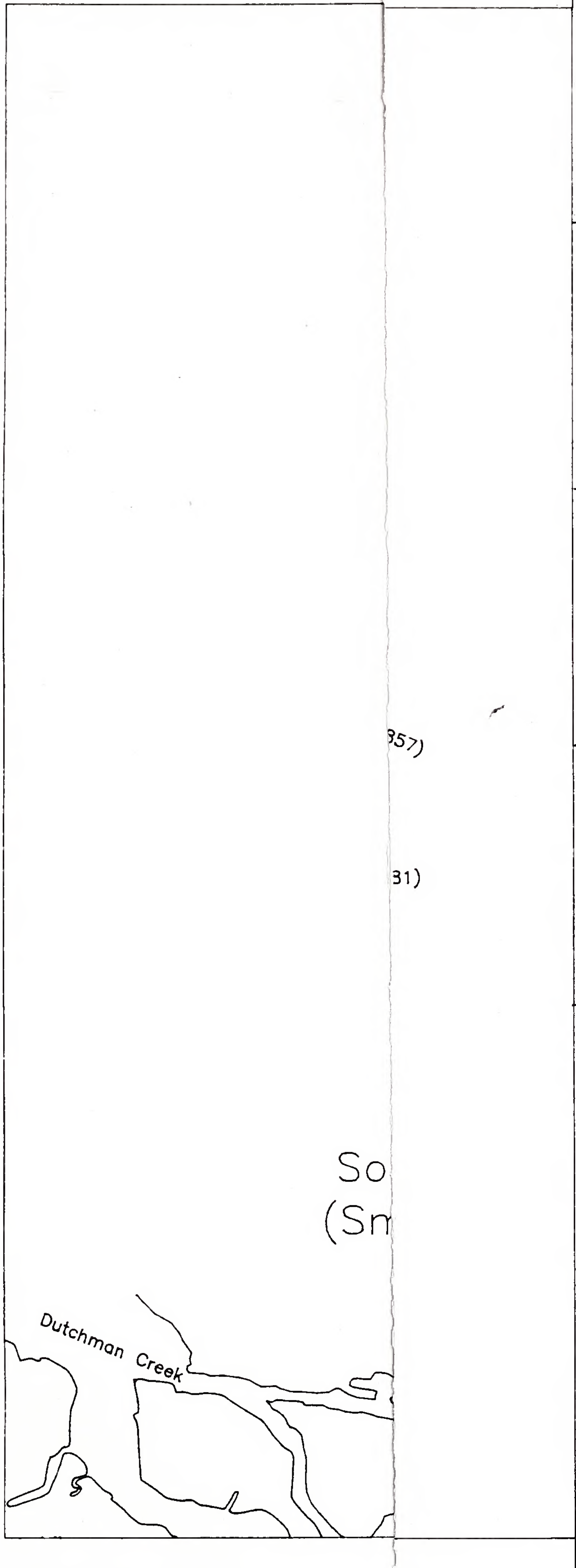
Carolina Beach
Kure Beach
Cut
Snows
Telfairs Creek
Lards Creek
Dactar Point
Sugar Loaf Point (1858)
Ellis's Point (1778)
Sugar Loaf
Mott Creek
Logs and Big Islands Shoal (1884)
Keg Island
The Flats (1762)
Campbell or Big Island
Nutt's Shoal (1777)
Ballast Rack (1901)
Negro Island (c.1800)
Liliput Shoal (1884)
Old Brunswick Cove Shoal
McNight's Shoal (1795)
Midnight Shoal
Town Creek Shoal (1823)
Orton Point
Brunswick Point
Brunswick (1827)
Creek
Orton
Sampson Pond
Reaves Point (present)
Robbins Point (1840)
Sturgeon Point (1781)
Reaves Point
Creek
Liliput
Creek
Hill
Sand
Creek
Town

Figure 5. Geographical Locations: Town Creek to Reaves Point.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Dutchman Creek

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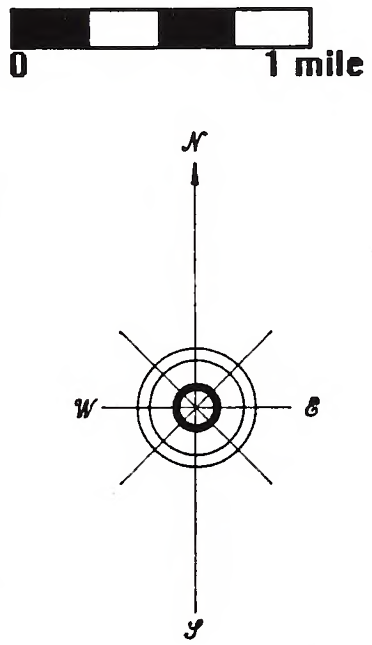
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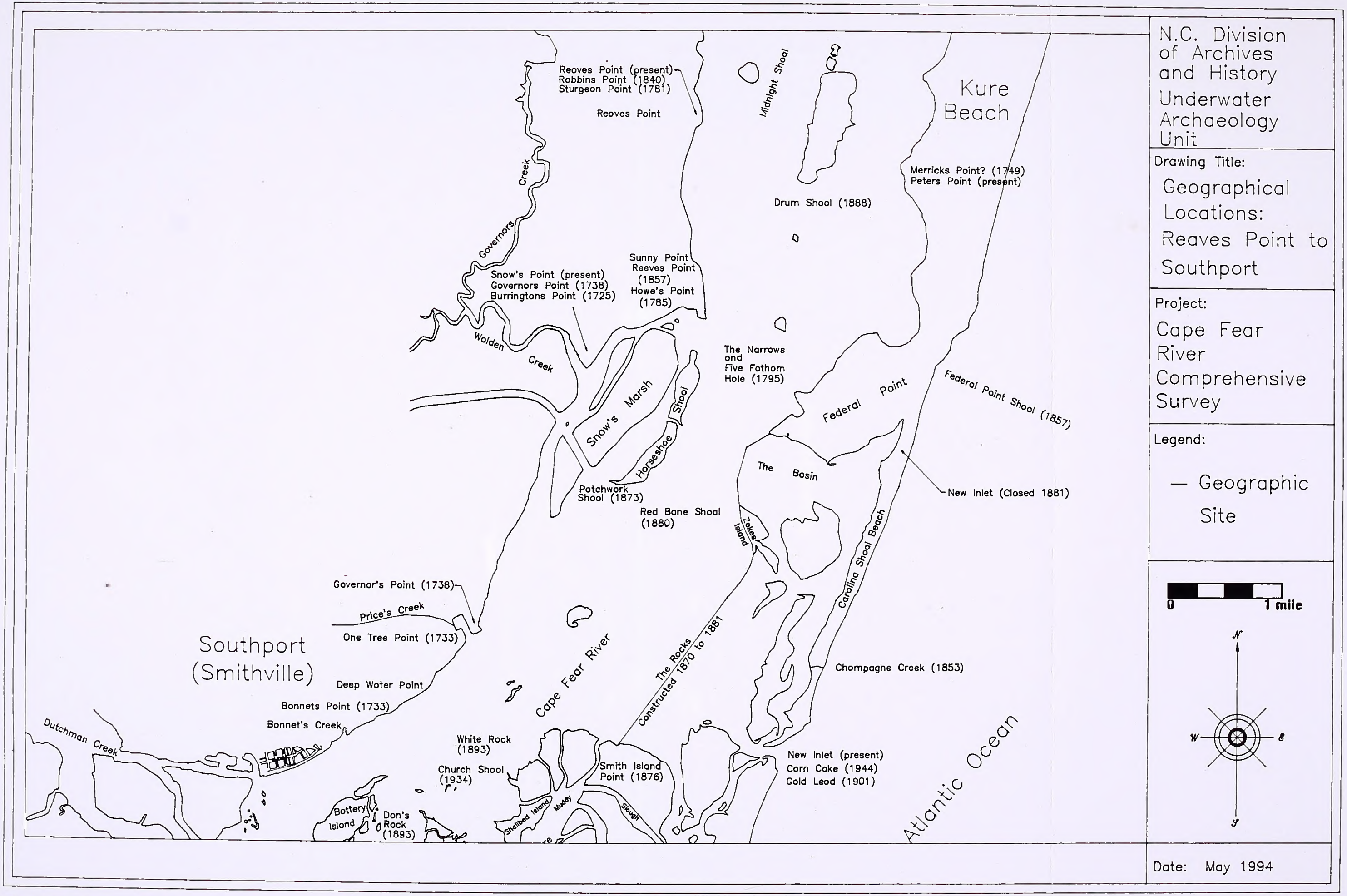
Figure 6. Geographical Locati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Project:
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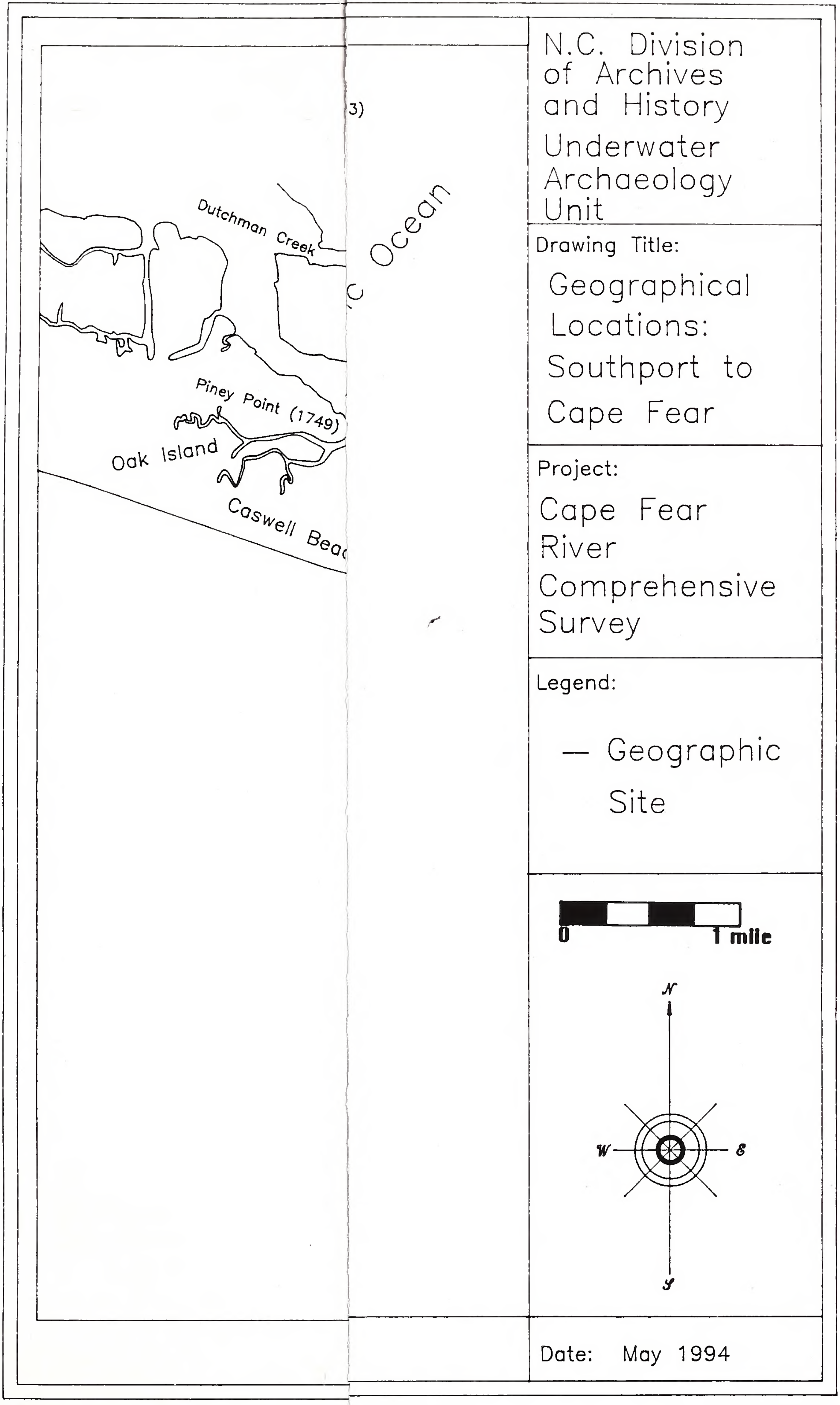
Reaves Point (present)
Robbins Point (1840)
Sturgeon Point (1781)
Reaves Point
Governors Creek
Midnight Shoal
Kure Beach
Merricks Point? (1749)
Peters Point (present)
Drum Shoal (1888)
Sunny Point
Reaves Point (1857)
Howe's Point (1785)
Snow's Point (present)
Governors Point (1738)
Burringtons Point (1725)
Wolden Creek
The Narrows and Five Fathom Hole (1795)
Federal Point
Federal Point Shoal (1857)
Snow's Marsh
Shoal
Horseshoe
The Basin
New Inlet (Closed 1881)
Patchwork Shoal (1873)
Red Bone Shoal (1880)
Zekes Island
Carolina Shoal Beach
Governor's Point (1738)
Price's Creek
One Tree Point (1733)
Southport (Smithville)
Deep Water Point
Bonnets Point (1733)
Bonnet's Creek
Dutchman Creek
Cape Fear River
The Rocks Constructed 1870 to 1881
Champagne Creek (1853)
White Rock (1893)
Church Shoal (1934)
Smith Island Point (1876)
New Inlet (present)
Corn Cake (1944)
Gold Lead (1901)
Atlantic Ocean
Battery Island
Don's Rock (1893)
Shellbed Island
Muddy
Slough

Figure 6. Geographical Locations: Reaves Point to Southport.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Dutchman Creek
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Piney Point (1749)
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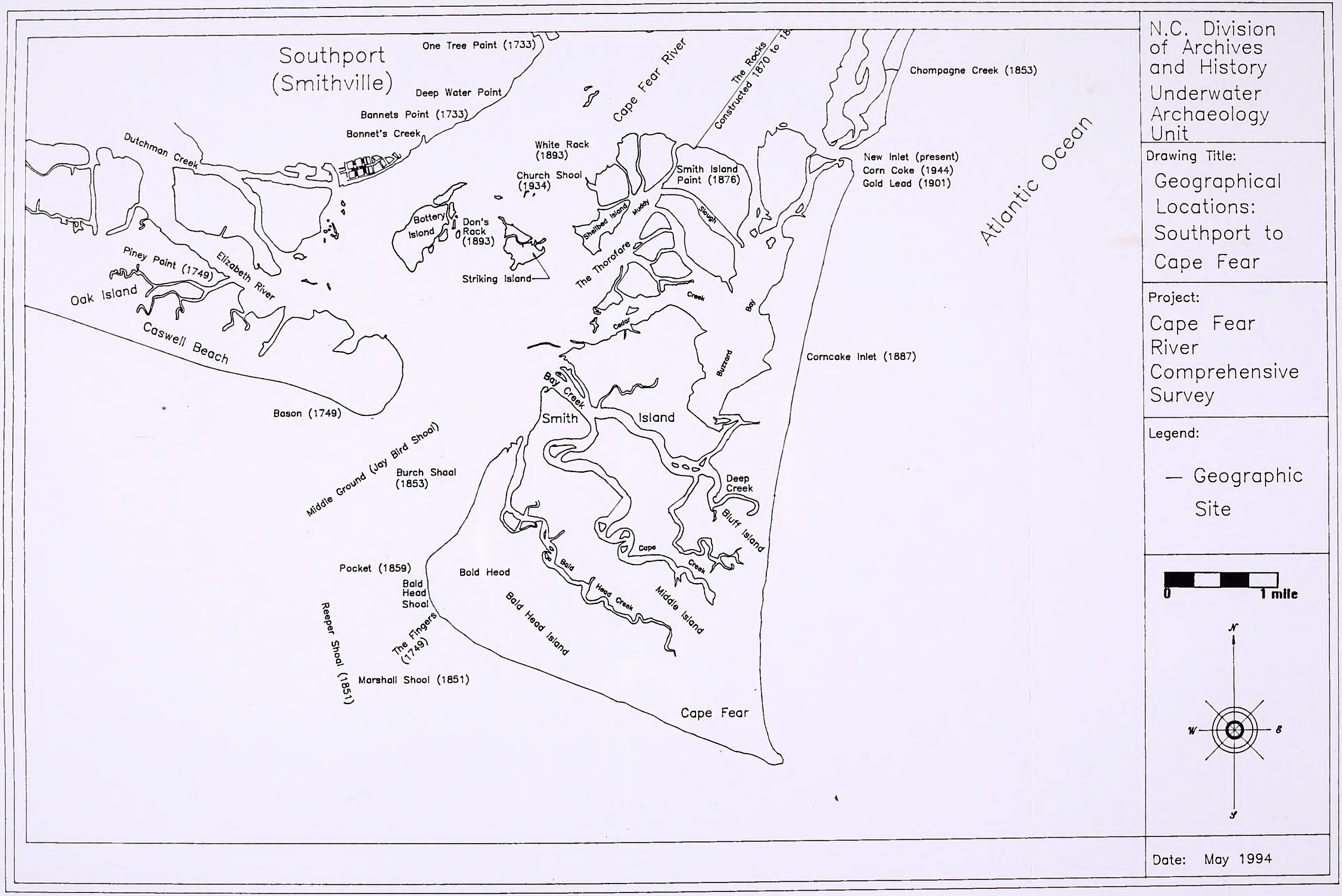
Figure 7. Geographical Loca


Southport (Smithville)
One Tree Point (1733)
Deep Water Point
Bannets Point (1733)
Bonnet's Creek
Dutchman Creek
Piney Point (1749)
Elizabeth River
Oak Island
Caswell Beach
Bason (1749)
Cape Fear River
The Rocks Constructed 1870 to 18
Champagne Creek (1853)
White Rock (1893)
Church Shoal (1934)
Battery Island
Don's Rock (1893)
Striking Island
Smith Island Point (1876)
Shellbed Island
Muddy
Slough
The Thorofare
Creek
Cedar
Bay
Buzzard
New Inlet (present)
Corn Cake (1944)
Gold Lead (1901)
Atlantic Ocean
Corncake Inlet (1887)
Bay Creek
Smith Island
Deep Creek
Bluff Island
Cape Creek
Middle Island
Bald Head Creek
Bald Head Island
Bald Head
Middle Ground (Jay Bird Shoal)
Burch Shoal (1853)
Pocket (1859)
Bald Head Shoal
The Fingers (1749)
Reeper Shoal (1851)
Marshall Shoal (1851)
Cape Fear
N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title: Geographical Locations: Southport to Cape Fear
Project: Cape Fear River Comprehensive Survey
Legend:
— Geographic Site
0
1 mile
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Date: May 1994

Figure 7. Geographical Locations: Southport to Cape Fear.

account noted that the Northeast River was deep enough for "a Sloop of 60 Tons. . ." (Pennsylvania Gazette, April 29-May 6, 1731). On the Edward Moseley map (1733) and all subsequent maps, the two rivers are correctly shown as the Northeast and Northwest branches of the Cape Fear River (Powell 1968:355; Collet 1770; Anonymous 1775; USACOE 1827; Dickinson 1848; Turner 1856; CSAE 1864c; James & Brown 1870, 1889; Gray 1873; USGS 1979b; NOAA 1992).

Brunswick River (Hilton's River, Northwest River)

The Brunswick River branches off the Cape Fear River about 3 miles above Wilmington, flows southeasterly about 5½ miles, and rejoins the main stream about one-quarter mile below the city. The Brunswick River was often mistakenly believed to be the Northwest Branch of the Cape Fear River. During the seventeenth century the Brunswick River was known as Hilton's River; it was named by Captain William Hilton, who explored both branches of the river for a group of New England settlers. Hilton named the river in his own honor and later (1662) led a group of settlers back to Cape Fear region, where they briefly established a colony called Charles Town on the western shore of the Cape Fear. It was said that Hilton explored "Hilton's River" for some 50 miles and found it to be "as fair, if not fairer than the Northeast branch. . . ." The Hilton River appears on the Nicholas Shapley map (1662). In his History of Brunswick County, Lawrence Lee attributes the Hilton River as the Brunswick River (Lee 1978:12; Reaves 1988;1; USACOE 1977:14).

During the eighteenth century the river was known as the "Northwest Branch of the Cape Fear River," or Northwest Cape Fear River (Lee 1978:12; Reaves 1988;1; USACOE 1977:14; Fulton 1823). James Sprunt commented on the main river course and use of the Thoroughfare:

> What is now called Brunswick River, on the west side of the island, was then the main River; and Wilmington was on the Northeast branch, and not on the main stream of the Cape Fear. That portion of the river which runs from the Northeast branch by Point Peter, or Negrohead Point, as it is called, to the Northwest branch at the head of Eagles' Island, is called in the old deeds and statutes of the State the "Thoroughfare," and sometimes the "Cutthrough" from one branch to the other; and the land granted to John Maultsby, on which a part of Wilmington is situated, is described as lying opposite the mouth of the "Thorough-fare" (Sprunt 1992:14; Dickinson 1848).

The Brunswick River appears by name on the Hamilton Fulton map (1823), although how much earlier this name was used has not been determined. The Brunswick is also shown on a map drawn by the U.S. Army Corps of Engineers in 1827 and on subsequent maps of the region drawn since that time. Following the end of World War II the United States Maritime Administration selected the Brunswick River as one of several locations for the mothballing of surplus troop transport vessels. On August 12, 1946, the first transport arrived at the Brunswick River facility, designated as the U.S. Maritime Commission Reserve Fleet Basin. Over the next twenty-four years 426 ships were moored at the basin. The last ship was eventually removed from the river on February 27, 1970 (Lee 1978:12; Reaves 1988;1; USACOE 1977:14; Fulton 1823; USACOE 1827, 1944, 1947; CSAE 1863a; 1863b; 1865; USGS 1979b; NOAA 1992).

Elizabeth River

The Elizabeth River is formed in southeast Brunswick County and flows eastward into the Cape Fear River below Southport (Smithville). The river defines the northern boundary of Oak Island. The earliest map that shows the Elizabeth River by name was drawn by Edward Moseley in 1733. The river is referred to as the Elizabeth River or creek on subsequent maps since that time. The river presently forms part of the Atlantic Intracoastal Waterway (Powell 1968:160; Moseley 1733; NOAA 1992).

BAYS, PONDS, AND NARROWS

Nine bays, ponds, and narrows have been identified within the project area. A description for each of the following is given below.

The Basin
Basson/Bassin
Buzzard/Oyster Bay
Muddy Slue
The Narrows/Five Fathom Hole
The Pocket
Greenfield Mill Pond
Orton Pond
The Thorofare

The Basin

The closure of New Inlet in the late nineteenth century by the man-made dike between Federal Point and Zekes Island, known as The Rocks, formed an area of the Cape Fear River known as The Basin. The Rocks presently form the western boundary of the Basin, while Federal Point to the north and Zekes Island and the marshes and sand beach form the eastern and southern limits. The Basin first appears by name on a Coast and Geodetic Survey map (1944). The current navigational map shows the approximately 2,000-by-1,000-yard Basin with water depths of less than 5 feet (USCGS 1944a; USGS 1979a; NOAA 1992).

Bason (Bassin)

The Bason appears on the Hyrne map (1749) as a triangular section of Atlantic Ocean immediately adjacent to the south side of Oak Island. The Bason is further defined by unnamed shoals to the southwest and the shoals at the mouth of the Cape Fear River, generally referred to as the Middle Ground. Water depths within the Bason are shown to be 6 or 7 feet at low water. On an anonymous French map drawn in 1778 the area is again similarly illustrated, but spelled Bassin. The Bason is not known to appear on any subsequent maps of the area (Hyrne 1749; Anonymous 1778).

Buzzard Bay (Oyster Bay)

Buzzard Bay is located in the tidal marshes that form northern Smith Island. It was once accessible from the Atlantic Ocean through Corncake Inlet. At present, several creeks connect the Cape Fear River to the western and northern sides of the bay. The earliest map to show Buzzard Bay by name was drawn by Joshua Potts around 1797. It also appears by that name on the Price and Strother map (1807). From the 1850s to 1880s it was also known as Oyster Bay and first labeled under both names on a U.S. Coast Survey map (1857). From 1888 to the present, maps indicate it only as Buzzard Bay. Water depths within the bay are indicated as less than 7 feet on the current navigation map (Potts 1797; Price and Strother 1807; U. S. Coast Survey 1857b; U.S. Coast Survey 1866; USCGS 1886, 1944b; USCGS 1888; NOAA 1992; Powell 1968:78).

Muddy Slue

An area located among the creeks and marshes of northern Smith Island has been known as Muddy Slue since the mid-nineteenth century. Muddy Slue is first mentioned by name on a U.S. Coast Survey map from 1851 and shown on several other subsequent maps. Tidal creeks, including Bowensville, Middle, Shellbed, Still, and Burriss, flow into Muddy Slue. Some of the most recent maps of the vicinity show a change in the spelling of Slue to Slough (Powell 1968:341; U.S. Coast Survey 1851; USCGS 1944b; USGS 1970; NOAA 1992).

The Narrows and Five Fathom Hole

At a deep spot occurring naturally in the Cape Fear River near Snow's Marsh and Horseshoe Shoal were two places historically referred to as Five Fathom Hole and the Narrows. Although no map could be found to identify their exact location, an 1886 U.S. Army Corps of Engineers report stated that Five Fathom Hole was located "opposite and above the head of Snow's Marsh." The earliest known reference to the two locations was in 1795. In that year the North Carolina commissioners of revenue authorized James Read to receive proposals for staking out a navigable channel in the Cape Fear River. One of the chosen locations where two stakes would be fixed was on the points of the shoal below Five Fathom Hole called the Narrows (Wilmington Chronicle and North Carolina Weekly Advertiser, October 22, 1795; USACOE-AR 1886:1014-15).

Nearly a century later these locations were again mentioned in a local newspaper. When the U.S. Army Corps of Engineers abandoned the old Horseshoe Shoal channel, a new channel was dredged and renamed the Snows Marsh Channel. When completed in 1890, the new cut was made about 1,000 feet west of the Horseshoe Shoal channel and followed the natural course of the river through Five Fathom Hole to the deep water at Southport (Wilmington Weekly Star, June 14, 1890; Moseley 1733; Hyrne 1749; Price and Strother 1807).

The Pocket

On a U.S. Coast Survey map of 1859, a small area of moderately deep water known as the Pocket was shown at the mouth of the Cape Fear River. The Pocket, with indicated depths from 3 to 15 feet, was located directly west of Bald Head Point between the Middle Ground and the northern tip of Reepers Shoal. From 1839 until after the closure of New Inlet, the main river channel was west of Middle Ground at the Western Cut, causing this area of the old channel to be discontinued. When the Bald Head channel was reopened after 1872, the Pocket likely became part of the new dredged channel. It is not known to be indicated on any subsequent maps (U.S. Coast Survey, 1859a).

Greenfield Mill Pond (McIlhenny's Mill Pond, Greenfield Lake)

Just south of Wilmington at Greenfield Lake and Gardens, a rice plantation with pond, known as Greenfields, was originally granted to William Smith in 1735. The property subsequently passed from Smith to Robert Halton then to Dr. Samuel Green, a young surgeon, in 1753. At the "mill pond" or lake, Dr. Green built a sawmill. The location of this sawmill is noted on the Collet map (1770) and the Mouzon map (1775). Early in 1850 the property and mill pond subsequently passed to Thomas McIlhenny, who retained the property for a number of years and continued to use the pond to support two grain mills. The Greenfield plantation remained in the McIlhenny family until 1872 and was known for several years as McIlhenny's mill or mill pond. The pond was connected to the Cape Fear River by a creek. In September 1920 the Greenfields property was sold to the city of Wilmington to be developed into an amusement park and later Greenfield Lake and Gardens (New Hanover County Deeds, Book GGG-152; Wilmington Star, May 26, 1857, July 4, 1882 and December 14, 1883; Moore 1968:103; New Hanover County Deeds, Book H-92; V-239; HH-70; Hall 1980:414-415).

Orton Pond

Orton Pond, built in 1810, is a man-made pond on the west side of the Cape Fear River in Brunswick County. It has a surface area of approximately 500 acres and a maximum depth of 12 feet. The earliest known map to indicate Orton Pond by name was drawn in 1864 by Confederate engineers. Orton Creek, labeled on maps from the eighteenth century, continues to flow from the pond into the Cape Fear River (Powell 1968:366; CSAE 1864c; USGS 1970a; NOAA 1992; Moore 1968:17).

The Thorofare

A shallow area of the Cape Fear River between Striking Island and Smith Island is labeled on the current navigation map as The Thorofare. This area is not known to be indicated by name on any previous maps of the vicinity (NOAA 1992).

INLETS

Three inlets have been identified within the project area. A description for each of the following is given below.

Corncake Inlet

Gold Leaf Inlet

New Inlet

Corncake Inlet

An entrance from the Atlantic Ocean into the Cape Fear River at Buzzard Bay just north of Smith Island was known as Corncake Inlet during the late nineteenth and twentieth centuries. Corncake Inlet and nearby Gold Leaf Inlet both appear to have been formed prior to 1887, when they first are indicated on maps by name. By 1883 the U.S. Army Corps of Engineers had already contracted individuals for supplying stone, brush, and other material for closing Corncake Inlet. The inlet appears on several U.S. Coast and Geodetic Survey maps drawn after 1887, with the last known one drawn in 1959. Corncake Inlet was reported to be nearly closed by 1933, when its width was only 75 yards. A depth of just 2 feet of water covered the bar. By 1944 the Corncake Inlet name was applied to the "Goldleaf" entrance (Powell 1968:120; Wilmington Star, October 4, 1883; Wilmington News, March 17, 1933; USCGS 1887; USCGS 1959).

Gold Leaf Inlet (New Inlet II)

Gold Leaf Inlet first appears as a break through the narrow sand barrier between the Cape Fear River and the ocean on a U.S. Coast and Geodetic Survey map drawn in 1887. The inlet remains identified on maps until the early twentieth century. By 1944 the Gold Leaf name had been discontinued and replaced with Corncake Inlet. At that time a channel connected the inlet with Buzzard Bay. Since the 1960s the inlet has been referred to as New Inlet—not to be confused with the original New Inlet that opened in 1761 just below Federal Point (USCGS 1887; USCGS 1888; USCGS 1901b; Anonymous 1964; USGS 1979a; NOAA 1992).

New Inlet

New Inlet was formed by a major storm in 1761 immediately below Federal Point. The inlet created a new entrance to the Cape Fear River and significantly changed the main channel at the river's mouth. "Baldhead" channel had been the natural and main entrance to the river, but as a result of the formation of New Inlet the depth of water upon the main bar diminished from 15 feet in 1797 to 9 feet in 1839. A new entrance called the Rip or Western Channel was formed; and from 1839 to 1872 both the Rip and New Inlet were the main entrances, and the use of Baldhead was discontinued. During the Civil War, New Inlet was used extensively by blockade-runners to bring goods into Wilmington. Construction was begun on a major seawall, known as The Rocks, by the Corps of Engineers in 1870 to close off New Inlet and change the navigation channel back to its former entrance at the mouth of the Cape Fear River. When completed in 1891, the defensive dam permanently closed New Inlet to navigation and Baldhead channel again became the main entrance to the Cape Fear River. New Inlet was indicated on several maps drawn during the eighteenth and nineteenth centuries. The last known map to include New Inlet by name was the U.S. Coast and Geodetic Survey in 1901 (Sprunt 1896:136; Powell 1968:349; Collet 1770; Mouzon 1775; Potts 1797; Price and Strother 1807; U. S. Coast Survey 1853; U.S. Coast Survey 1864; USCGS 1901b).

SHOALS

Twenty-seven shoals have been identified within the project area. A description for each of the following is given below.

Alligator Creek Shoal
Bald Head Shoal
Brunswick River Shoal
Bulk Head Shoal
Burch Shoal
Caroline/Carolina Shoal
Church Shoal
Drum Shoal
Federal Point Shoal
The Flats
Horseshoe Shoal
Lilliput Shoal
Logs and Big Island Shoal
Marshall Shoal
McNight's Shoal
Middle Ground/Jay Bird Shoal
Middle Shoal
Midnight Shoal
Nutt's Shoal
Old Brunswick Cove Shoal
Patchwork Shoal
Red Bone Shoal
Reeper Shoal
The Fingers
Town Creek Shoal
Wilmington Shoal
Wreck Shoal

Alligator Creek Shoal

Alligator Creek Shoal was located during the 1890s in the Cape Fear River approximately one mile below Wilmington. Sediments deposited from Alligator Creek on nearby Eagles Island contributed to the accumulation of materials at the shoal within the river. The Corps of Engineers began dredging a channel 9,800 feet long 270 feet wide and 20 feet deep through the shoal during 1890, thus eliminating much of Alligator Creek Shoal. The shoal is indicated by name on U.S. Army Corps of Engineer maps from 1891 and 1895 (USACOE 1891a, 1895b; USACOE-AR 1896:1137).

Bald Head Shoal

One of the most dangerous shoals to navigators for at least three centuries has been the Bald Head Shoal at the mouth of the Cape Fear River. The first known map to indicate the shoals off the southwestern shore of Smith Island was drawn in 1781. During the nineteenth century several maps were drawn by the U.S. Coast Survey, and later its successor, the U.S. Coast and Geodetic Survey, that indicated the presence of Bald Head Shoal. Numerous shipwrecks have been recorded as lost at this vicinity. On a map by the U.S. Army Corps of Engineers drawn in 1891, Bald Head Shoals and the nearby Fingers are shown as the East Breakers. Bald Head Shoal is still present and labeled on current navigation maps (Anonymous 1781a; USACOE 1891a; NOAA 1992).

Brunswick River Shoal
On at least three maps drawn by the U.S. Army Corps of Engineers during the 1880s the location of a shoal at the mouth of the Brunswick River is shown. During 1885 a contractor for the Corps of Engineers dredged the Brunswick River Shoal, one of only three shoals in the river where the depth at the beginning of the year had not measured 16 feet. Maintenance dredging at the shoal continued during the following decades (USACOE 1884, 1885; 1886; USACOE-AR 1885:1089, 1093; 1895:1336; U.S. Coast Survey 1901a).

Bulk Head Shoal
Bulk Head Shoal is mentioned in an 1834 newspaper account. Local pilots declared that the shoal had more than 12 feet of water at high tide. No location was given for Bulk Head Shoal (Reaves 1978:35).

Burch Shoal
Burch Shoal at the mouth of the Cape Fear River is shown on the 1853 map drawn by the U.S. Coast Survey and on a 1864 U.S. Army Corps of Engineers map. This small shoal is located in almost a direct line between the eastern end of Oak Island and Bald Head Point on Smiths Island. It is likely that Burch Shoal joined with the Middle Ground shoal and the name was no longer used after the mid-nineteenth century (U.S. Coast Survey 1853; USACOE 1864).

Caroline Shoal (Carolina Shoal)
On a map prepared by the U.S. Coast Survey in 1859, Caroline Shoal extended from Zeek's Island to the New Inlet channel. North of the channel was Federal Point Shoal. Both shoals formed the bar at the mouth of New Inlet. Two years later an area called "Zeke's Island Flat" formed the extreme western end of Carolina Shoal. At this time the name of the shoal had been changed to "Carolina." The shoal appears on additional maps drawn about the time of the Civil War with this name. Following the closure of New Inlet by the defensive dam known as The Rocks in the early 1880s, sand quickly accumulated at Carolina Shoal until a beach was formed. On U.S. Coast and Geodetic Survey maps drawn about the turn of the century, the area was indicated as Carolina Shoal Beach. After 1901 the name appears to have been dropped from all maps when Carolina Shoal became part of the sand spit between Federal Point and Smith Island (Powell 1968:89; U. S. Coast Survey 1857b; 1859b; 1864; 1866; USCGS 1888; USCGS 1901b).

Church Shoal
In 1934 a local newspaper reported that two gentlemen had found a large whale stranded on Church Shoal in the Cape Fear River. The shoal was located about 2½ miles south of the rocks, or 4½ miles above the mouth of the river. Church Shoal was

described as being visible at mean low tide on the eastern side of the channel. No additional reference to this shoal could be found (Wilmington News, June 6, 1934).

Drum Shoal

On maps drawn by the U.S. Coast and Geodetic Survey in 1888 and 1901, small Drum Shoal is shown just east of the Reeves Point Channel, northeast of Snows Marsh. The shoal is not known to appear by name on any other maps (USCGS 1888; 1901b).

Federal Point Shoal

In the mid-nineteenth century Federal Point Shoal was located along the eastern side of Federal Point above New Inlet. Federal Point Shoal extended southward, divided by the New Inlet channel from Caroline Shoal south of the channel. These shoals formed the bar at the mouth of New Inlet (U.S. Coast Survey 1857b).

The Flats

During the eighteenth century the natural channel tended to flow near the western shore as far as Big Island (Campbell Island), just below the mouth of Old Town Creek. Silt, deposited within the river near the mouth of Old Town Creek, formed a shoal called the "Flats," where the average depth was only 10 feet of water. Vessels drawing more than this depth were compelled to lighter at the Flats at a considerable expense of time and money. The earliest account of the Flats is taken from Governor Dobbs's report to the London Board of Trade in 1762. During the Revolutionary War, vessels were sunk at the Flats to form obstructions to navigation. Until the vessels obstructing the channel were finally removed, the Flats continued to impede the navigation of ships using the river. Historical accounts often referred to ships grounded on the continuously shifting Flats. In 1823 that the Board of Internal Improvement approved a plan submitted by Hamilton Fulton, civil engineer, for improvement of the channel between New Inlet and Wilmington, and affecting the removal of the Flats (Secretary of State Papers, Committee of Safety 1774-1776; Carolina Observer and Fayetteville Gazette, February 13 and 20, March 20 and August 7, 1823).

Horseshoe Shoal

From prior to the Civil War until the present, an area east of Snows Marsh has been identified as Horseshoe Shoal. The first known map on which Horseshoe Shoal appears by name is on the U.S. Coast Survey map drawn in 1853. The shoal presented a major navigational obstacle after the war and was extensively dredged by the Corps of Engineers in the 1870s and 1880s. Horseshoe Shoal has lost much of its original shape and is currently illustrated as a long narrow shoal west of the main Cape Fear channel adjacent to Snows Marsh (U.S. Coast Survey 1853; 1857b; USCGS 1901b; NOAA 1992).

Lilliput Shoal

In the 1880s and 1890s the Corps of Engineers conducted extensive dredging at Lilliput Shoal, located about 11 miles below Wilmington near the mouth of Lilliput Creek. The shoal appears on several maps drawn by the corps during that period. After the turn of the century, Lilliput Shoal had been nearly removed by dredging (USACOE 1884; 1885; 1886; 1891a; USCGS 1901a).

Logs and Big Island Shoal

The Logs and Big Island Shoal was another of the major Cape Fear River shoals that presented problems to navigation during the late nineteenth and early twentieth centuries. Comprised of a blockage of submerged cypress stumps, the shoal was located about 7 miles below Wilmington northeast of Big Island (Campbell Island). On U.S. Army Corps of Engineers maps from 1884 and 1885 and on a 1901 U.S. Coast Survey map, Big Island Shoal is noted northeast of Campbell Island and west of the navigation channel (USACOE 1884; 1885; U.S. Coast Survey 1901a; USACOE 1916b).

Marshall Shoal

Marshall Shoal was first identified on a U.S. Coast Survey map (1851) map as a small area directly south of Bald Head Point. The shoal was located southeast of the channel at the mouth of the Cape Fear River beyond Bald Head Shoal. By 1857 Marshall Shoal had connected with The Fingers to eliminate the old channel. On the U.S. Coast Survey map of 1866, Marshall Shoal was no longer indicated (U.S. Coast Survey 1851; 1853; 1857a; 1857b; 1859a; 1864; 1866; USCGS 1886).

McNight's Shoal

McNight's Shoal was a lengthy shoal located along the western shoreline of the Cape Fear River from Brunswick Town to Snows Point. According to one late eighteenth-century reference, McNight's Shoal was located opposite Sturgeon Point (Reaves Point) on the Cape Fear River. In 1795 the commissioners of revenue authorized that stakes should be placed at various places in the river to indicated the channel. One of the locations chosen was at McNight's Shoal (Price and Strother 1807; Wilmington Chronicle and North Carolina Weekly Advertiser, October 22, 1795).

Middle Ground (Jay Bird Shoals)

The major shoal at the mouth of the Cape Fear River has been known as the Middle Ground since it first appeared by name on the Wimble map of 1738. The Middle Ground is also illustrated on other early maps such as the Collet (1770) and Mouzon (1775). It appears as a large hourglass-shaped shoal on the Potts map (1797). By 1820 the Middle Ground is illustrated at the bar between the Ship Channel to the west and the Baldhead channel to the east. About 1839 the Middle Ground connected with

"Reeper Shoal", "Bald Head" Shoal and the "Fingers" to close off the main Baldhead channel. From 1839 to 1872 the Rip, also known as the Oak Island or Western Channel, was the main entrance at the mouth of the river. Baldhead Channel to the east of Middle Ground was discontinued. After 1872 and the closure of New Inlet, Baldhead once again became the main channel. In 1891 the "Ocean Bar" channel passed between the "Middle Breaker" (Middle Ground) and the "East Breakers" (Bald Head Shoals and The Fingers). The Middle Ground was consistently labeled on maps during the twentieth century until the current navigation map, where it is shown as Jay Bird Shoals (Wimble 1738; Collet 1770; Mouzon 1775; Potts 1797; U.S. Topographical Bureau 1820; USACOE 1891a; NOAA 1992).

Middle Shoal

Middle Shoal is mentioned in an 1834 newspaper account. Local pilots declared that Middle Shoal had more than 12 feet of water at high tide. No location was given for the shoal. This shoal may be Middle Ground (Reaves 1978:35).

Midnight Shoal

Around the 1880s the Corps of Engineers identified Midnight Shoal opposite Reeve's Point as one of the river shoals in need of dredging to improve navigation. On a U.S. Coast and Geodetic Survey map drawn in 1888, the river channel is shown to pass through Midnight Shoal. The shoal is again shown on a map in the early twentieth century. Access channels to reach the Military Ocean Terminal, Sunny Point (MOTSU) wharves were cut across Midnight Shoal during the 1950s. Midnight Shoal is still shown on the 1992 NOAA navigation map (USCGS 1888; USCGS 1901a,b; NOAA 1992).

Nutt's Shoal

One of the earliest shoals identified within the Cape Fear River was Nutt's Shoal, located southwest of Campbell Island. On the Potts map (1797) and the Price and Strother map (1807) it is illustrated as extending along the western shore of the river from Old Town Creek to Orton Creek. The shoal was again marked on an 1823 map by Hamilton Fulton, a civil engineer contracted by the state. Nutt's Shoal was indicated much smaller and had formed at the southern end of the channel that passed to the west of Campbell Island. Less than 10 feet of water covered the shoal. Nutt Shoal was apparently named in association with the Nutt family, whose members settled in Wilmington prior to the American Revolution. William Nutt and John Nutt were wealthy landowners in the area. Their residences appear above Lilliput Creek on the 1797 map (Potts 1797; Price and Strother 1807; Fulton 1823; Wilmington Star, August 26, 1976).

Old Brunswick Cove Shoal

Old Brunswick Cove Shoal was located approximately 13 miles below Wilmington just downstream of Orton Point. In 1890-1891 a channel 1,000 feet long by 270 feet wide was dredged to a depth of 16 feet and appears on an 1891 U.S Army Corps of Engineers map. Continual shoaling in Brunswick Cove prompted the Board of Commissioners of Navigation and Pilotage to recommend in 1911 a new, straighter, channel that bypassed the shoal (USACOE 1891a; USCGS 1901a; Wilmington Star, October 5, 1911).

Patchwork Shoal

During the 1870s, references were made to a Patchwork Shoal located in the vicinity of Snows Marsh. In early February 1873 the brig *C.S. Packard* was reported ashore at the "Patchwork." The brig was bound from Navassa Island with phosphates to the Navassa Guano Company above Wilmington. The *Packard* was successful in getting off the shoal, reportedly about 25 miles below the city. In 1876 the contract for dredging the new Snows Marsh Channel to 200 feet wide and 12 feet deep at low tide had been completed and staked out for general use. The new channel was shorter and deeper than the old one around the patchwork shoal. No maps are known that show the exact location of this shoal (Wilmington Star, February 7, 8, 1873, June 2, 1876).

Red Bone Shoal

Another historic shoal located in the vicinity of the Horseshoe was Red Bone Shoal. During a severe gale near Smithville in 1880 the schooner *Louis Harmond*, loaded with phosphates for the Navassa Guano Company, grounded on the "Red Bone" shoal at "Horse Shoe," about 4 miles above Smithville. No other reference or maps showing the location of Red Bone Shoal could be located (Wilmington Star, November 12, 1880).

Reeper Shoal

Reeper Shoal is first known to be shown on an 1851 U.S. Coast Survey map near the mouth of the Cape Fear River. Its location is indicated as slightly southwestward of Bald Head Point and Bald Head Shoal. Reeper Shoal was one of the major river entrance shoals and was consistently shown on maps until 1886. Maps drawn after this date have omitted the shoal from the area (U.S. Coast Survey 1851; 1853; 1857a,b; 1859a; 1864; 1866; USACOE 1864; 1885a; USCGS 1886).

The Fingers

A shoal area known as The Fingers has been noted on maps at the mouth of the Cape Fear River since 1749. The Fingers are first illustrated on the Hyrne map as two narrow shoals extending in a southwestward direction from the west end of Bald Head beach. The shoal is occasionally shown on maps till the mid-nineteenth century. In 1857 the adjacent Marshall Shoal connected with The Fingers, which were then shown just southeast of Bald Head Shoal. By 1891 The Fingers and Bald Head Shoal were indicated as the "East Breakers" (Hyrne 1749; Anonymous French Map 1778; Potter 1814; U. S. Coast Survey 1857b, 1864, 1866; USCGS 1886, 1888; USACOE 1891a).

Town Creek Shoal

An early shoal identified within the Cape Fear River was Town Creek Shoal, located just above the mouth of Town Creek at the northern end of the channel that passed to the west of Campbell Island. The shoal was marked on an 1823 map by Hamilton Fulton, a civil engineer contracted by the state. Less than 10 feet of water covered the shoal. After the area was bypassed by the main channel to the east of Campbell Island, the area continued to accumulate sand deposits. Presently less than 2 feet of water covers the vicinity. No other map is known to indicate this shoal by name (Fulton 1823).

Wilmington Shoal

Wilmington Shoal, located at the city, was first indicated on a U.S. Army Corps of Engineers map drawn in 1886. The shoal was dredged when Congress approved deepening of the channel that year. It was reported that the dredging in 1890-1891 maintained a channel 3,200 feet long by 270 feet wide and 20 feet deep across Wilmington Shoal. On an 1927 Corps of Engineers' map, the channel was still indicated as the "Wilmington Shoal channel." After this date no further reference could be found mentioning this shoal by name (USACOE 1886; USACOE-AR 1887:1049; USACOE 1891a; USACOE 1927a).

Wreck Shoal

Wreck Shoal is mentioned in an 1834 newspaper account as being the worst shoal in the river. Local pilots declared that the shoal had only 12 feet and 4 inches of water at high tide. No location was given for Wreck Shoal (Reaves 1978:35).

SAND HILLS AND ROCKS

Six prominent named sand hills and rocks have been identified within the project area. A description for each of the following is given below.

Bald Head/Barren Head
Ballast Rock
Dan's Rock
Mount Misery
Sugar Loaf
White Rock

Bald Head (Barren Head)

Bald Head has long been considered as one of the most notable geographic sites along the lower Cape Fear River. Located on the complex of islands known as Smith Island, this landmark appears on many of the early historic maps of the vicinity. On the Moseley map of 1733 the prominent sand hill appears labeled as "Barren Head." Historically, Bald Head was described as "a noted bluff on Cape Fear Island" devoid of vegetation, but today the term is generally applied to mean the extreme southwest portion of the southernmost island in the complex. With only a slight variation in the spelling of the name, Bald Head has been recorded on published maps since the eighteenth century (Stick 1985; xvii-xviii; Hall 1975:262; Moseley 1733; Wimble 1733; Hyrne 1749; Collet 1770; Lewis 1795; USACOE 1827; U. S. Coast Survey 1859a; Colton 1861; NOAA 1992).

Ballast Rock

The location of Ballast Rock appears southwest of Keg Island on a U.S. Coast and Geodetic Survey map (1901). The small feature occurs on the west side of the channel in less than 5 feet of water. This area could indicate the location where ship ballast was discarded. No other known map or reference could be found with Ballast Rock marked (USCGS 1901a).

Dan's Rock

Dan's Rock was noted in 1893 as "a small mud flat lying between Battery Island and Stryking Island, southeast of Southport." It was once considered a possible location for the late nineteenth-century quarantine station. The exact location and origin of Dan's Rock is not known (Wilmington Star, January 20, 1893; Reaves 1990:48).

Mount Misery

About 7 miles above Wilmington, on the Northwest branch of the Cape Fear River, was a prominent geologic feature known as Mount Misery. It first appears by name on the Collet map of 1770 north of Eagles Island. Mount Misery is also noted on other maps of the late eighteenth and early nineteenth centuries. After this period occasional mention is made of Mount Misery, while no other maps are known to show its location. Mount Misery, a sand hill that reached a height of only 25 feet, apparently obtained its name as a result of the extreme difficulty encountered by laborers attempting to cultivate the area. A ferry operated across the river at this point as early as 1754. Modern development has all but destroyed the site of Mount Misery (Powell 1968:339; Moore 1968:79-81; Collet 1770; Mouzon 1775; Anonymous 1781a; Holland 1794; Price and Strother 1808).

Sugar Loaf

A prominent natural sand dune known as Sugar Loaf is located on the Cape Fear River about 7 miles north of the tip of Federal Point. The name "Sugar Loaf" was reportedly given to the sand dune in 1663 by William Hilton, a plantation owner and later settler from Barbados, because it reminded him of a mass of Barbados crystallized sugar. Sugar Loaf was the site of prehistoric Indian occupation, and in 1725 the last of the Cape Fear Indians were defeated at this location. The once 110-foot Sugar Loaf first appeared by name on the Potts map of about 1797 and later on a U.S. Coast Survey map in 1856. During the Civil War Confederate Brigadier General Robert F. Hoke used the site of Sugar Loaf as a command post for his 6,400 troops. Fighting relating to the capture of Fort Fisher occurred at this spot in early 1865. A landing was located near the highly visible sand dune during much of the nineteenth century. Sugar Loaf is a notable geographic feature within the Sunny Point Buffer Zone, although current maps rarely show it by name. Sugar Loaf is also within the boundaries of Carolina Beach State Park and can be reached by a hiking trail from the park marina (Lee 1980:94; Sprunt 1992:381; Coastal Carolinian, August 12, 1982; Potts 1797; Price and Strother 1807; U.S. Coast Survey 1856, 1858, 1865b; CSAE 1864c; Kerr and Cain 1882; USCGS 1901a; USGS 1970a).

White Rock

One of the most promising sites for a new quarantine station in 1893 was said to be at White Rock within the Cape Fear River, southeast of Price's Creek. It possessed the advantage of being fairly well protected from wind and water, did not endanger Southport, was well isolated, and was out of the way of regular river traffic. No maps could be located that indicated the exact location of White Rock (Wilmington Star, January 20, 1893; Reaves 1990:48).

ISLANDS

Fourteen named islands have been identified within the project area. A description for each of the following is given below.

Battery Island
Campbell Island
Clarks Island
Eagles Island
Keg Island
Longs Island
Marsh Islands
Middle Island
Negro Island
Oak Island
Shellbed Island
Smith Island
Striking Island
Zeke's Island

Battery Island

Battery Island is a tidal marsh island located in the Cape Fear River opposite Southport. The main channel has always passed to the west of Battery Island, one of the larger islands in the river. The earliest recorded deed transaction took place on August 12, 1801, when John Burgwin White obtained 55 acres on Battery Island. The first known map to show Battery Island by name was drawn in 1827 by the U.S. Army Corps of Engineers. Since that time the island has been shown on numerous other maps (Powell 1968:26; New Hanover County Deeds, Book 111:43; USACOE 1827, 1876a; U.S. Coast Survey 1853, 1864 Colton 1861; USCGS 1888,1901b; NOAA 1992).

Campbell Island (Crane Island, James Island, Great Island, Large Island, Big Island)

Below the mouth of Town Creek is a large island presently known as Campbell Island. Historically the island has been referred to by several names. It was first known as

Crane Island, a name given to it by early voyagers to the Cape Fear in 1663. The report of the Commissioners from Barbados in October 1663 stated that the channel was east of the island, where it is presently located (Sprunt 1896:39-41; Angley 1983:2). Crane Island is also indicated on the Gascoyne map of 1682. Large or Great Island were the names used during the late eighteenth century and appear on maps or accounts of that period. In an 1834 deed a tract of land was conveyed opposite Big Island to a Marsden Campbell. By the middle of the nineteenth century and until the early twentieth century, the name Big Island was contemporary with Campbell Island and embraced about 200 acres. Campbell Island was named for William Campbell, a general in the American Revolution (Sprunt 1896:39-41; Powell 1968:83; Lee 1965:165-166; New Hanover County Deeds, Book V:155; Horne 1666; Gascoyne 1682; Fulton 1823; USACOE 1839, 1880,1884, 1916a; U.S. Coast Survey 1856; CSAE 1863b; 1864c; U.S. Coast Survey 1864; USCGS 1901a; 1929; USGS 1970a; NOAA 1992).

Clarks Island (possibly Cat Island)

Listed in the New Hanover County Deed Book for February 1805 was the sale of 320 acres on the east side of the Cape Fear River opposite a place called Cat Island. The location of Cat Island has been reported to be "about three miles below the city." The same piece of property was resold in 1829, the deed again made mention that it was opposite Cat Island. During the nineteenth and early twentieth centuries a small island located at the southeastern tip of Eagles Island was shown on several maps as Clark's Island. Clark's Island may once have been known as Cat Island. The earliest known map on which Clark's Island is shown by name was an anonymous one from the late eighteenth century. Clark's Island is again shown on the Hamilton Fulton map of 1823 and on maps drawn by the U.S. Coast Survey and U.S. Army Corps of Engineers over the next century. The small waterway between Clark's Island and Eagles Island eventually filled with sand, and the two islands formed as one. The last map to show a distinct Clark's Island was drawn in 1929 by the U.S. Coast and Geodetic Survey (Deed Books, M:525, T:297; Hall 1980:138; Anonymous ca. 18th century; Fulton 1823; USACOE 1827, 1863, 1876b, 1884; U.S. Coast Survey 1856; CSAE 1865; USCGS 1901a; 1929, 1979b).

Eagles Island (Cranes Island, Buzzards Island, Great Island)

Eagles Island is actually a group of large, swampy islands located between the Cape Fear and Brunswick Rivers opposite Wilmington. In 1672 it appears as Cranes Island on the Ogilby map. Other short-lived names included Buzzards Island and Great Island. The seven-mile-long by two-mile-wide island obtained its present name from Joseph and Richard Eagles, who settled in the area about 1725 and became prominent planters. In September 1735 King George II granted a section of the island to John Watson. On February 17, 1737, the king granted Richard Eagles Sr. the major portion of a "big island" across the Cape Fear River from the small village of Newton (later called Wilmington). On January 12, 1738, John Watson deeded 540 acres at the Forks to Eagles which added more island land to Eagles's original grant. The name Eagles Island is first shown on the Wimble map of 1738. The southeastern tip of the island was once a separate island known as Clark's Island. Sometime after 1929 the two islands joined together. Although maps from the eighteenth century depict the spelling of the island as "Eagles," current maps show the name as "Eagle" (Powell 1968:154; Watson 1973:42; New Hanover County Deeds, Book AB:119; Ogilby ca. 1672; Wimble 1738; USCGS 1929; USGS 1979b; NOAA 1992).

Keg Island (Little Island)

Keg Island, also known historically as Little Island, is located southeast of Campbell Island. References to Keg Island can be found for the last two decades of the nineteenth century, but the earliest known map to show it by name was drawn in 1901 by the U.S. Coast and Geodetic Survey. Keg Island has been shown occasionally on maps until the present. The latest navigational map shows the long and narrow island east of the main river channel (Powell 1968:261; Wilmington Star, February 21, 1881, January 23, 1891; Wilmington Messenger, December 6, 1895; USCGS 1901a; 1929; USGS 1970a; NOAA 1992).

Longs Island

Longs Island applied to the land between the Brunswick and Cape Fear Rivers, north of Eagles Island. The area was formerly an island when a creek flowed between the two rivers. The name is first known to appear on the Ogilby map (1671), and later on the Gascoyne (1682), Lea (1695) and Moll (1729) maps (Powell 1968:299; Gascoyne 1682; Lea 1695; Moll 1729).

Marsh Islands (Snows Marsh)

At the mouth of Walden Creek on the west side of the Cape Fear River are the Marsh Islands. The earliest known map to label these islands by name was an anonymous French map from 1778. The three Marsh Islands were shown surrounded by an extensive shoal area (later known as Horseshoe Shoal), with a narrow channel leading to the mouth of the creek from the main river channel to the east. The surrounding shoal extended from Snows Point, above the creek, to One Tree Point, south of Walden Creek. On maps drawn during the Civil War the islands are again labeled as the Marsh Islands. After 1875 the Marsh Islands are indicated as Snow's Marsh, apparently named for Robert Snow, who came to the region in the late 1750s or early 1760s and maintained a residence at Snow's Point north of Walden Creek. The current navigation map illustrates Snows Marsh as a complex of marsh islands west of the main river channel (Angley 1983:6-7; Anonymous 1778; Colton 1861; U.S. Coast Survey 1864; 1866; USACOE 1875; 1876a; 1885; USCGS 1886; 1888; 1901b; USGS 1979a; NOAA 1992).

Middle Island

Smith Island at the mouth of the Cape Fear River is actually comprised of three named islands and several marsh islands. From north to south the three named islands are Bluff, Middle, and Bald Head. The long and narrow Middle Island extends from the East Beach approximately 3,400 yards to the northwest. The forested island is bounded by tidal flats on either side and by Cape Creek to the north and Bald Head Creek to the south. Middle Island has only been indicated by name since the 1960s (Anonymous 1964; (USGS 1970c; NOAA 1992).

Negro Island

On an anonymous eighteenth century map Negro Island is shown near the west side of the Cape Fear River below Town Creek and Large Island (Campbell Island). No further reference or current association could be made for this island (Anonymous, ca. eighteenth century).

Oak Island

Oak Island is presently a peninsula formed between the Elizabeth River and the Atlantic Ocean. Located on the western side of the mouth of the Cape Fear River, the land mass first appeared as a named island on the 1733 Wimble map. The Lords Proprietors deeded Oak Island to Maurice Moore in 1727. The island in its entirety was owned by individuals until 1825, when it was purchased by the U.S. government for defensive installations. From 1733 to the present Oak Island has been illustrated on numerous maps (Powell 1968:359; Herring and Williams 1983:121; Wimble 1733; 1738; Collet 1770; Potter 1814; USACOE 1827; U.S. Coast Survey 1851; 1853; 1857b; 1858; 1859a; NOAA 1992).

Shellbed Island (Shellbank Island)

On an anonymous map drawn in 1964, Shellbank Island is shown as one of the marsh islands of northern Smith Island. This same marsh island, adjacent to the Thorofare, is indicated as Shellbed Island on the current navigation map (Anonymous 1964; NOAA 1992)

Smith Island Complex (Cape Island, Cape Land, Cape Fear Island, Cedar Island, Bald Head Island, Palmetto Island)

Smith or Smith's Island is actually of complex of islands with forested dune and beach ridges, salt marshes, and tidal bays and creeks. The islands and marshes at the river's mouth correspond roughly to the area originally acquired by Thomas Smith in 1713, then known as Cape Island. The first known map to indicate the island by name was the Moseley map of 1733, which showed it labeled as "Landgrave Smiths Island." On the Wimble map from the same year the island was marked "Cape Land," as it was on the Hyrne map of 1749. When Thomas Smith willed the island to his four sons in 1738, he said that the old name was Cedar Island. Three sand ridges that extend nearly across the island from east to west make up the three currently named islands-Bluff, Middle, and Bald Head. Tidal creeks and salt marshes separate the islands. Bald Head Island, the southernmost of the three, takes it name from a large, bare sand mound on the southwestern tip of the island referred to as Bald Head. At first, the name Bald Head Island applied only to the lower island, but at present the name is also used to refer to the total Smith Island complex (Stick 1985:xvii-xviii,13,79; Hall 1975:263; Powell 1968:459; Moseley 1733; Wimble 1733; Hyrne 1749).

The southeastern tip of Bald Head Island forms the noted Cape Fear, along with the dangerous Frying Pan Shoals. In 1916 businessman and developer Thomas Boyd purchased Bald Head Island and renamed it Palmetto Island. When Boyd's venture went broke in the 1920s, Brunswick County foreclosed on the property and changed the name back to Smith Island, the name it retains at present (Herring and Williams 1983:3; Stick 1985:xvi,79-86; Lewis 1795; Price and Strother 1807; 1808; Mac Rae and Brazier 1833; U.S. Coast Survey 1851; 1853; 1857a,b; 1858; 1859a,b; USGS 1970a; 1979a; NOAA 1992).

Striking Island

Striking Island is one of the few named tidal marsh islands near the mouth of the Cape Fear River opposite Southport. Located directly east of Battery Island, the island does not appear by name until the mid nineteenth-century (Powell 1968:479; U.S. Coast Survey 1853; 1857b; 1864; CSAE 1863b; USACOE 1876a; USCGS 1888; 1901b; USGS 1979a; NOAA 1992).

Zekes Island (Zeek's Island)

Zeke's Island is a sand and tidal marsh island in the Cape Fear River opposite Snows Marsh. The first known map to indicate the island by name, then spelled Zeek's, was drawn in 1851 by the U.S. Coast Survey. The spelling of the island appears to have been "Zeek's" until about the start of the twentieth century, when the name then began to be shown as Zeke's Island. During the 1870s the U.S. Army Corps of Engineers constructed a stone dam to close off New Inlet, which extended from Federal Point to Zeke's Island. The dam was later extended from Zeke's Island to Smith Island (Powell 1968:549; U.S. Coast Survey 1851,1853,1857a,b,1859b,1864,1866; Colton 1861; CSAE 1863b; CSAE 1864c; USACOE 1875, 1876a; USCGS 1888; USGS 1979a; NOAA 1992).

CREEKS

Thirty-three named creeks have been identified within the project area. A description for each of the following is given below.

Alligator Creek
Bald Head/Lighthouse Creek
Barnards/Bernards Creek
Bay Creek
Boiling Springs Branch
Bonnet's Creek/Fiddler's Drain
Bowensville Creek
Burriss Creek
Cape Creek
Cedar Creek
Champagne Creek
Deep Creek
Doctor's Branch
Dutchman Creek
Fishing Creek
Greenfield Creek/Jumping Run
Jacobs's Run
Lilliput Creek
Lords/Telfairs Mill Creek
Mallory/Read's Creek
Middle Creek
Mott/Todd's Creek
Orton Creek
Price's Creek
Redmond Creek
Sand Hill Creek
Shellbed Creek
Smiths Creek
Still Creek
Tanyard Branch
Town/Indian Creek
Walden/Governors Creek
Willow Spring Branch

Alligator Creek

Alligator Creek is a tidal stream located on Eagles Island. The first known map on which the creek appears by name was drawn by the U.S. Army Corps of Engineers in 1827. Alligator Creek dissects Eagles Island from the northwest to the southeast, where it flows into the Cape Fear River opposite Wilmington (Powell 1968:8; USACOE 1827, 1948b; USCGS 1929; USGS 1948, 1979b).

Bald Head Creek (Light House Creek)

Bald Head Creek is the southernmost tidal waterway on Smith Island and is located between Bald Head and Middle Islands. It begins near the coastal beach above Cape Fear and flows in a northwesterly direction into the Cape Fear River. Light House Creek, as Bald Head Creek was once known, appears on a U.S. Coast and Geodetic Survey 1901 map (Powell 1968:20; Hall 1975:263; USCGS 1901b, 1944b; USGS 1970).

Barnards Creek (Bernard's Creek, Wildon's Creek, Barnham Creek, Barnum Creek)

In the early eighteenth-century New Hanover county deeds, reference is made to Barnard's or Bernard's Creek, on the east side of the Cape Fear River about 5 miles below Wilmington, which flows west into the Cape Fear River. In the earliest of these deeds, land was granted to Col. Maurice Moore on Barnard's Creek in January 1729. Up until the early nineteenth century the name of the creek is shown spelled both ways in the county records and in newspaper accounts, although for whom the creek was originally named is not known (New Hanover County Deeds, Book M:89-90; Land Grant Office, Book 8:109; Wilmington Gazette, April 2, 1801). The earliest known map to show the creek was drawn by Price and Strother in 1807; that map indicated the name as Wildron's Creek, the probable nearby landowner during the period. When the creek is next cartographically shown in 1823, and again in 1827, the name is indicated as Barnham Creek. During the mid-nineteenth century the name is also shown on maps of the period as Barnum Creek. From the close of the Civil War until the present, Barnard's Creek has been the consistent spelling and only name of the creek (Powell 1968:24; Price and Strother 1807; Fulton 1823; USACOE 1827; Mac Rae and Brazier 1833; U.S. Coast Survey 1856, 1865b; New York Herald 1865; USCGS 1901a; 1929; 1944a; USGS 1948, 1979b; NOAA 1992).

Bay Creek

Bay Creek is shown on recent maps as one of the small tributaries that dissect the tidal flats of northern Smith Island. Bay Creek extends from its junction with Cape Creek and flows southeastward, and then northeastward, into Buzzards Bay with the flood tide (Powell 1968:27; Hall 1975:263; USGS 1979a; NOAA 1992).

Boiling Springs Branch

Boiling Springs Branch was a small waterway that had its origin in the city of Wilmington near Fifth and Wooster Streets. The creek flowed slightly southward until it emptied into the Cape Fear River near the foot of Dawson Street (Moore 1968:111).

Bonnet's Creek (Fiddler's Drain)

Bonnet's Creek is a short tributary that flows east into the Cape Fear River at Southport. Around the time of the Civil War the creek was known as Fiddler's Drain. The creek was later renamed for Stede Bonnet, the "Gentleman Pirate," who used the mouth of the creek as a hideout for his vessel, the *Royal James*, formerly called the *Revenge*. There, on September 26, 1718, the great "Battle of the Sand Bars" was fought between the pirates and the men under the command of Col William Rhett sent to capture them aboard the *Henry* and *Sea Nymph*. After a twenty-four-hour battle nineteen men were killed and twenty-three were wounded, and Bonnet, with the remains of his pirate crew, surrendered. No known historic map shows the creek labeled as Fiddler's Drain or Bonnet's Creek (Reaves1990:237; USGS 1990; William-McEachern Civil War file UNCW).

Bowensville Creek

Bowensville Creek is one of several tidal creeks located on the northern part of Smith Island. The 2,000-foot-long, shallow creek flows roughly northeast on the flood tide across a tidal flat between Muddy Slough and the Cape Fear River. The name has been used on maps since at least 1970 (USGS 1979a).

Burriss Creek
Burriss Creek is located in the tidal marsh area of northern Smith Island. The creek flows northwesterly on the flood tide a short distance across a tidal flat between Cedar Creek and Muddy Slough. The name has been used on maps since at least 1970 (USGS 1979a).

Cape Creek
Cape Creek is the longest of the tidal waterways located on Smith Island. The creek rises about one mile north of Cape Fear just inside the outer beach and extends northwestward to its main outlet on the western side of the island. A portion of the creek flows between Bluff and Middle Islands. Cape Creek has been shown by that name on maps since the early nineteenth century (Powell 1968:87; Hall 1975:263; Potter c.1814; U. S. Coast Survey 1857b, 1866; USACOE 1864, 1876a; USCGS 1886, 1888, 1901b, 1944b; USGS 1979a; NOAA 1992).

Cedar Creek
Cedar Creek is a tidal creek located in the northern marsh area of Smith Island. The creek extends from the Cape Fear River northeastward into Buzzard Bay. The name has appeared on maps since at least 1944 (USCGS 1944b; USGS 1979a; NOAA 1992).

Champagne Creek
This short creek is shown on the U.S. Coast Survey map of 1853 across the narrow sand spit between the Atlantic Ocean and the Cape Fear River just southeast of Zeek's Island. It is not known to exist on any other maps (U.S. Coast Survey 1853).

Deep Creek
Deep Creek is a tidal waterway located on Smith Island. The creek rises near the eastern beach and flows northwesterly across a tidal flat into Bay Creek. Deep Creek appears by name on maps since at least 1970 (USGS 1979a; NOAA 1992).

Doctor's Branch
Doctor's Branch was described in 1919 as being located on Federal Point. Although, the exact location of the creek is not known, the following is an account of how it came to be named:

> [During the late nineteenth century] a family lived on the Federal Point road and had their family physician from Wilmington. A member of the family was taken ill one night, and the physician sent for. He was away to

> see another patient, and a substitute doctor secured. While the substitute was attending the patient the regular physician returned and immediately hurried towards the family home. The substitute started back to Wilmington, and the two met at a little insignificant branch. An argument followed regarding professional ethics and a fight was the outcome. It was a merry battle, and before the dust had cleared away, the two had done so much damage to each other that it required the services of a third physician to patch them up. Since that time the little stream has been known as Doctor's Branch (Wilmington Dispatch, March 2, 1919).

Dutchman Creek

Dutchman Creek is a large waterway that flows southeastward into the Cape Fear River below Southport. A large tidal flat separates the mouth of Dutchman Creek from the mouth of the Elizabeth River. The creek, which rises within the county and flows into the Cape Fear, was shown on a map as early as 1749 (Powell 1968:153; Hyrne 1749; Anonymous 1778; Price and Strother 1807; USGS 1990; NOAA 1992).

Fishing Creek

One of the several tidal streams located on Smith Island is Fishing Creek. The small creek rises in the tidal marsh near the western end of Middle Island and flows north, then back south, into Bald Head Creek. Fishing Creek is known to appear by name only on maps produced after 1970 (USGS 1979a; NOAA 1992).

Greenfield Creek (Jumping Run, Greenfield Mill Creek)

What is known today as Greenfield Creek, located south of Wilmington between the Cape Fear River and Greenfield Lake, has been referred to historically by different names. This tributary appears as Jumping Run on the Joshua Pott's map (1777) and the Price and Strother map (1807). Dr. Samuel Green, a young surgeon, obtained the nearby land and lake in 1753, and his named property appears on contemporary maps adjacent to Jumping Run. Historian Louis Moore noted that in 1842 a big controversy arose over whether the name of the creek was "Jump and Run," or "Jumping Run" Branch. In 1850 Thomas McIlhenny purchased the adjoining property and pond. The pond was commonly referred to as McIlhenny's Mill Pond, and it is likely the creek was similarly named for him during that time. By 1856, however, a U.S. Coast Survey map showed the name of the creek as Greenfield, named for Samuel Green a century earlier. In 1920 the city of Wilmington purchased the lake and surrounding property and the name of the lake and creek continued to be referred to as Greenfield. The creek was briefly shown during the 1920s on maps by the U.S. Army Corps of Engineers as Greenfield Mill Creek. Current maps show this small outlet from the pond as Greenfield Creek (Powell 1968:259; Moore 1968:150; New Hanover County Deeds, Book GGG-152; New Hanover County Deeds, Book H-92; V-239; HH-70; Hall 1980:414-415; Potts

1797; Price and Strother 1807; Price and Strother 1808; U.S. Coast Survey 1856; USCGS 1901a; USACOE 1922, 1927b; NOAA 1992)

Jacobs's Run

Jacobs's Run was a small stream located in Wilmington, with its origin near Fourth and Princess Streets. The creek ran in a southwestward direction past the corner of Second and Market Streets until it emptied into the Cape Fear River near the foot of Dock Street. At the intersection of Second and Market Streets was located "Mud Market," where tradition states that prior to the Civil War small boats drawing less than 3 feet of water could proceed up Jacobs's Run as far as Second Street. Jacobs's Run may have been named for George Jacobs, who resided in Wilmington during the American Revolution, or for Joseph Jacobs, a builder and investor who built a home in Wilmington in the Princess Street area in 1803. By the 1890s the much shallower Jacobs's Run was enclosed by bricks to form a sewer and paved over. Some sections of the old Jacobs's Run sewer tunnel exist today buried beneath the downtown area (Moore 1968:111; Wilmington Star, March 20, 1874, August 27, 1972; Wilmington Weekly Star, January 17, 1890).

Liliput Creek (Lilliput or Lilyput Creek, Allen's Creek)

Lilliput Creek, located in Brunswick County on the west side of the Cape Fear River, flows eastward from McKinzie Pond into the river opposite Doctor Point. This historic creek was named during the early eighteenth century for the nearby plantation of Eleazer Allen, judge, receiver general, and treasurer of North Carolina, located on the north side of Lilliput Creek. Allen received a grant for the land in 1725 and named the plantation for the imaginary country in Jonathan Swift's satire Gulliver's Travels (1726). Lilliput plantation is first shown on the Moseley map of 1733 as "E. Allen." The name of the plantation is variously spelled on maps of the late 1700s as "Lilliput to the G" (Collet 1770), "Lillyput" (Mouzon 1775), "Lilyput" (Holland 1794) and "Lilliput" (Potts 1797). The creek does not appear by name until the early nineteenth century. While the tributary is shown as "Liliput Creek" on a map drawn by the U.S. Army Corps of Engineers in 1827, it appears just six years later as "Allen's Creek" on the Mac Rae and Brazier map. On maps produced during the period of the Civil War the name of the creek is shown either as Lilliput or Allens Creek. Since the twentieth century the spelling of the creek has consistently been Liliput (Powell 1968:282; USACOE 1827; Mac Rae and Brazier 1833; Colton 1861; CSAE 1863b; New York Herald 1865; U. S. Coast Survey 1856, 1865b; Kerr and Cain 1882; USCGS 1901a, 1929, 1944a; USGS 1970a; NOAA 1992).

Lords Creek (Telfairs Mill Creek)

Lords Creek rises in New Hanover County southeast of Campbell Island and flows west into the Cape Fear River. Although the creek was named for the Lord family of Brunswick County, the exact period of first use could not be determined. One source states, however, that the name of the creek may have been applied as early as the 1780s, when a William Lord sold property at the head of the creek to Peter Maxwell. A pond or lake apparently fed Lord's Creek. At an unknown time Lord's Creek became known as Telfairs Creek and is shown on a U.S. Geological Survey map in 1948 flowing into the river. More recent maps of the area show both Lords Creek discharging into the Cape Fear, while a different Telfairs Creek to the southeast has its southern end terminated at Snows Cut (Powell 1968:300, 489; Hall 1975:219; USGS 1948, 1970a).

Mallory Creek (Read's Creek)

Mallory Creek flows east into the Cape Fear River just south of the Brunswick River. The earliest known map to indicate the creek by name was drawn in 1823 by Hamilton Fulton, who labeled it Read's Creek. Since 1833 the name has been consistently noted as Mallory Creek. The historical relationship between the creek names and the supposed adjoining property owners could not be determined (Powell 1968:310; Fulton 1823; Mac Rae and Brazier 1833; U.S. Coast Survey 1856; New York Herald 1865; USCGS 1901a, 1929, 1944a; USGS 1979b; NOAA 1992).

Middle Creek

Middle Creek is a tidal waterway located in the northern salt marsh of Smith Island. The creek extends from the Cape Fear River on its northern end to Muddy Slough on the southern end. Middle Creek has been illustrated by name on maps since at least 1970 (USGS 1979a).

Mott Creek (Todd's Creek)

Mott Creek flows southwest into the Cape Fear River on the eastern shore opposite Campbell Island. The earliest maps known to show Mott Creek by name are from the mid-1850s, although the creek is likely named for the Mott family, planters in New Hanover county since at least the 1730s. Todd's Creek was the name used from about the 1880s to the 1930s. The origin of this name is not known. Since the 1930s the creek has again been called Mott Creek (Powell 1968:494; Sprunt 1896:43; U.S. Coast Survey 1856; CSAE 1863b; CSAE 1864a; USCGS 1901a; 1929; 1944a; USGS 1970a; 1979b; NOAA 1992).

Orton Creek

Orton Creek flows eastward from Orton Pond in Brunswick County into the Cape Fear River above Orton Point. The creek was named for nearby Orton plantation granted, in 1725 by the Lords Proprietors to Maurice Moore, son of Governor James Moore of South Carolina, who had been sent several years earlier in 1711 with his brother, Colonel James Moore Jr., to suppress the Tuscarora Indian uprising within the province. Maurice, along with two other brothers-Roger and Nathaniel-returned to the

Cape Fear vicinity in 1726 with a group of settlers at the request of the last of the proprietary governors, George Burrington. Maurice choose to build his plantation several miles up the northeast branch of the river, so quickly passed the Orton estate near Brunswick to his brother, Roger, who named the 10,000-acre plantation Orton after the ancestral home of the Moores in England. The plantation is marked as "R. Moore" on both the Moseley 1733 map, and on the 1738 Wimble map, but Orton Creek is not shown by name until 1797. All maps that depict the tributary after this date have shown it as Orton Creek (Sprunt 1992:57-58; Powell 1968:366; Moore 1968:13-14; Sprunt 1958:5; Waddell 1989:42; Moseley 1733; Wimble 1738; Potts 1797; Price and Strother 1807; 1808; USACOE 1827; U.S. Coast Survey 1856, 1865b; Colton 1861; CSAE 1863b; New York Herald 1865; USCGS 1901a; 1929; 1944a; USGS 1970a; NOAA 1992).

Price's Creek

Price's Creek rises in Brunswick County and flows eastward into the Cape Fear River just north of Deep Water Point. A 1793 land grant indicates that Price's Creek was also known as Ashe Swamp. The creek first appeared by name on a U.S. Coast Survey map in 1851. Several other maps done during the late nineteenth century indicate the creek. The origin of the name is not known (Powell 1968:396; Brunswick County Land Grants Shuck No. 509; U.S. Coast Survey 1851; 1853; 1857b, 1864; 1865a; 1866; CSAE 1863b; 1864d; USACOE 1864; USCGS 1886; 1888; 1901b; 1944a; USGS 1979a; NOAA 1992).

Redmond Creek (Redmans Creek)

Redmond Creek is located on the western side of Eagles Island. It currently flows northeasterly with the flood tide from its mouth on the Brunswick River into Alligator Creek near N.C. Highway 133 at its northern end. The course of the waterway has changed since 1827, when it was apparently first indicated on a Corps of Engineers map as Redmans Creek. At that time the creek flowed into the Cape Fear River south of Alligator Creek. By 1856 the creek was illustrated as Redmond and flowed in a southeasterly direction into the Cape Fear. Alligator and Redmond Creeks appear to have merged with only a small stream now flowing into the Cape Fear (Powell 1968:407; USACOE 1827; U.S. Coast Survey 1856; USACOE 1927b; USCGS 1929; USGS 1948, 1979b).

Sand Hill Creek

Sand Hill Creek begins in central Brunswick County and flows northeasterly into the Cape Fear River near Campbell Island. The first known occurrence of the name of the creek appears in a U.S. Coast Survey map from 1856. Maps drawn since that time have continuously shown the name as Sand Hill Creek (Powell 1968:437; U.S. Coast Survey 1856; CSAE 1863b; USCGS 1901a, 1944a; USGS 1970a; NOAA 1992).

Shellbed Creek

Shellbed Creek is a tidal waterway located in the marsh islands of northern Smith Island. The creek flows roughly from north to south with the tide across a tidal flat. Shellbed Creek extends from the Cape Fear River on the north to Muddy Slough on the south. This creek has been shown by name on maps since at least 1970 (USGS 1979a).

Smiths Creek

Smiths Creek, also shown as Smith Creek, flows southwest into the Northeast Cape Fear River north of Wilmington. The creek has been indicated on maps of the vicinity since the late eighteenth century and is a major tributary into the river. It is likely the creek was named for Thomas Smith, an early eighteenth-century landowner, although the exact origin is not known (Powell 1968:459; Holland 1794; Lewis 1795; Turner 1856; James & Brown 1870; USACOE 1937a; NOAA 1992).

Still Creek

Still Creek is one of the tidal waterways located in the marsh islands of northern Smith Island. The creek flows from Muddy Slough southeasterly into Buzzard Bay. Still Creek is shown by name on maps since at least 1944 (USCGS 1944b; USGS 1979a; NOAA 1992).

Tanyard Branch

Tanyard Branch was a small stream located in Wilmington. It began on the east side of Third Street between Orange and Ann Streets and flowed due west into the Cape Fear River. A tanyard established about 1825 was located at or near Second Street near the stream (Moore 1968:111).

Town Creek (Old Town Creek, Indian Creek)

Town Creek is formed in east central Brunswick County by the junction of Rattlesnake Branch and Lewis Swamp and flows southeast into the Cape Fear River just above Campbell Island. Originally named Indian Creek by William Hilton in 1663, the creek is first shown as Old Town Creek on the Moseley map of 1733. Old Town refers to the Charles Towne settlement established from 1662 to 1663 as the center of a colony from Charlestowne, Massachusetts, under the leadership of William Hilton. In 1664 a colony from Barbados under the leadership of John Yeamans occupied the site, but it too abandoned the site in 1665. The creek has been illustrated on numerous maps since the eighteenth century and shown as either Old Town Creek or Town Creek, the name commonly used today (Powell 1968:99,107,496; Angley 1983:2; Moseley 1733; Mouzon 1775; Holland 1794; Potts 1797; Price and Strother 1807, 1808; Fulton 1823; USACOE 1827; Mac Rae and Brazier 1833; U.S. Coast Survey 1856, 1865b; Colton

1861; CSAE 1863b; Kerr and Cain 1882; USACOE 1916a; USCGS 1901a, 1929, 1944a; USGS 1979b; NOAA 1992).

Walden Creek (Governors Creek, Burringtons Creek, Snow Creek)

Walden Creek flows east into the Cape Fear River near Snows Point. Maps from the 1730s and 1740s clearly indicate that Walden Creek was previously known as Burringtons (or Governors) Creek. Royal Governor George Burrington purchased the adjoining property from the first grantee, John Porter, and established his plantation about 1725 just above the mouth of present-day Walden Creek. The governor's plantation was sold to Robert Snow in the late 1750s or early 1760s, after whom nearby Snow's Point was named. On a map from 1794 the tributary was labeled as Snow Creek. Since the mid-nineteenth century the name has been indicated as Walden Creek, although for whom it was named is not known (Powell 1968:514; Angley 1983:6-7; Waddell 1989:39; Sprunt 1992:57; Wimble 1733; Hyrne 1749; Holland 1794; Potts 1797; U.S. Coast Survey 1857b, 1858; CSAE 1863b, 1864c, 1864d; U.S. Coast Survey 1865b; Kerr and Cain 1882; USCGS 1886, 1888, 1901b, 1944a; USGS 1979a; NOAA 1992).

Willow Spring Branch

Willow Spring Branch has its origin in Wilmington near the corner of Third and Dock Streets. It flowed westwardly into the Cape Fear River between Dock and Orange Streets. As the name suggests, it was probably named for a nearby spring (Moore 1968:111).

POINTS

Twenty-one named points and capes have been identified within the project area. A description for each of the following is given below.

- Cape Fear
- Bald Head Point
- Bonnets Point
- Brunswick/Milmor's Point
- Deep Water Point
- Doctor/Caintuck Point
- Dram Tree Point
- Federal/Confederate Point
- Hospital Point
- One Tree Point
- Orton Point
- Peters Point
- Piney Point
- Point Peter/Negro Head Point
- Point Winslow
- Reedy Point
- Reeves/Sturgeon Point
- Sunny/Howe's Point
- Smith Island Point
- Snow's/Governors Point
- Sugar Loaf/Ellis's Point

Cape Fear (Cape Feare, Cape Fair, Cape Fayre)

Cape Fear is the southeastern tip of Smith Island, from which the Frying Pan Shoals extend outward into the Atlantic Ocean. Cape Fear was discovered by explorer Giovanni da Verrazano in 1524 but apparently not mentioned by name until June 1585, when Sir Richard Grenville reported that the ship *Tiger*, en route to Roanoke Island, was nearly wrecked "on a breache called the Cape of Feare." Two years later John White, on one of his voyages, also nearly wrecked "upon the breach called Cape of Fear." It is curious that both Grenville and White reported the Cape of Fear as being a breach, rather than a beach. During that same period Spanish maps marked the cape as "Cabo de Trafalgar." On the 1590 DeBry map of Lane's expedition in 1585, the cape appears in Latin as "Promontorium Tremendum." The Mercator-Hondius map of 1606 shows the Cape Fear as "C.S. Romano Hispanis." Other maps drawn during the seventeenth century-Comberford (1657), Ogilby (1672), and Lea (1695)-show the Cape Fear by name (Powell 1968:87; Sprunt 1992:1-3; Stick 1985:6; Moore 1968:34-38; White-DeBry 1590; Mercator-Hondius, 1606).

The name Cape Fair was substituted in the seventeenth century when colonists were encouraged to settle the Carolina region. "Adventurers about Cape Fayre" under the leadership of William Hilton made a brief settlement on Town Creek in 1662. In his 1663 Letter of the English Adventurers to the Proprietors, Hilton referred to the "Point of Cape Fair River." In addition to Hilton's report, others sources that made mention of a Cape Fair included the history and map of John Lawson, surveyor general in 1709, and Wimble's map of 1738. The name Cape Fair was not permanently accepted, and by the American Revolution Cape Fear had become the common designation (Powell 1968:87; Sprunt 1992:1-3; Stick 1985:6,9; Moore 1968:34-38; Lawson 1709; Barnwell 1722; Moseley 1733; Wimble 1733; Anonymous 1778; Anonymous 1781a; NOAA 1992).

Bald Head Point

Bald Head Point was once the extreme southwestern tip of Smith Island and defined the eastern shoreline at the mouth of the Cape Fear River. The prominent point is first known to have appeared by name on a U.S. Coast Survey in 1851. Other maps drawn in the 1850s and references made by the Corps of Engineers during the 1880s indicate Bald Head Point. A 1921 map by the U.S. Army Corps of Engineers is the last apparent map to indicate the feature by name. A realignment of the navigation channel at the mouth of the river and placement of jetties by the Corps of Engineers during the nineteenth century sped the natural deterioration of the point. The once-prominent point has now eroded eastward to the present shoreline of Smith Island (U.S. Coast Survey, 1851, 1853, 1858; USACOE-AR 1880s; USACOE 1864, 1910, 1921).

Bonnets Point

Bonnets Point first appears on the Moseley map, 1733, on the western shore of the Cape Fear River above present-day Southport. Earlier, in 1718, the capture of pirate Stede Bonnet was thought to have taken place at the point of land that eventually bore his name. On the 1749 Hyrne map, Bonnets Point is shown between Fort Johnson (Southport) and Deep Water Point. As late as 1778 "Bonnets Pointe" was still noted on maps. No other known maps after this date refer to the point. At present this part of the Cape Fear River's western shoreline shows no prominent jut of land once identified as

Bonnets Point (Powell 1968:58; Angley 1983:6; Stick 1985:17-21; Moseley 1733; Hyrne 1749; Anonymous 1778).

Brunswick Point (Milmor's Point, Anderson Landing)

Brunswick Point was the name formerly applied to the jut of land into the Cape Fear River southeast of the eighteenth-century site of Brunswick Town. While Brunswick Town was destroyed by fire in 1776, a few families returned after the American Revolution to rebuild. The name Brunswick Point was indicated on an U.S. Army Corps of Engineers map in 1827, at about the time that the site was completely abandoned and in ruins. On an 1858 U.S. Coast Survey map the area was shown as Milmor's Point. A Willis Miliner (spelled also Milnor), a wheelwright, and Robert Miliner (or Milnor), a laborer, lived just below the ruins of Brunswick Town by 1850. While neither man owned a substantial amount of real estate, it is likely "Milmor's Point" was named for one or the other of them. During the Civil War the construction of Fort Anderson on the ruins of Old Brunswick Town led to this location being called Anderson Landing, the name still used today (Powell 1968:66; South 1960:64; Angley 1983:22; USACOE 1827; U. S. Coast Survey 1858; USGS 1970a).

Deep Water Point

Deep Water Point is first known to be indicated on the Moseley map of 1733. The point is located on the western side of the Cape Fear River just north of present-day Southport. One of the few places south of Wilmington where the main river channel passes close to the western shore is at Deep Water Point. Historically, this area has been naturally deepened by the flow of the current to as much as its present depth of 30 to 32 feet. Deep Water Point is still shown on maps of the lower Cape Fear River (Powell 1968:139; Moseley 1733; Hyrne 1749; Anonymous 1778; Potts 1797; Price and Strother 1807; USACOE 1827; U. S. Coast Survey 1857b, 1858, 1864, 1866; CSAE 1864c; USCGS 1886; USGS 1979a).

Doctor Point (Caintuck, Kaintuck or Kentuck Landing)

Doctor Point, or Caintuck Landing as it was historically known, is located on the eastern shore of the Cape Fear River opposite Liliput Creek. The point was referred to by both names following the Civil War, with a variation on the spelling of Caintuck as late as 1902. The origin of Caintuck is not known. Doctor's Point is probably named for Dr. John Fergus, who maintained a plantation know as Bellmeade near the sound. In 1805 an advertisment in the local paper indicated that a person was needed to "take charge of the Plantation formerly the residence of Doctor John Fergus, deceased." During the late 1880s a pier was built at Doctor's Point (Caintuck Landing) for the steamer *Sylvan Grove*. Passengers could then board a train at the pier and travel from the Cape Fear River to Carolina Beach. Doctor's Point is shown on a U.S. Coast and Geodetic Survey map drawn in 1901. By 1902, however, the "Kentuck or Fergus Tract," once owned by the doctor, was offered up for sale by a D. L. Gore. By November 1902,

L. B. Rogers and his wife transfered the deed to the tract to the Myrtle Grove Building and Trust Company for $200. At that time the tract contained 320 acres. The possessive spelling of Doctor's Point is not shown on maps done after 1929. Today the jut of land is still shown as Doctor Point (Wilmington Gazette, April 9, 1805; Wilmington Daily Journal, November 10, 1866; Wilmington Evening Dispatch, April 28, 1902; Wilmington Star, November 12, 1902; New Hanover County Deed, Book 30:84-86; Book G-213; Hall 1975:172; USCGS 1901a, 1929; USGS 1970a; NOAA 1992).

Dram Tree Point

Dram Tree Point is closely related to the well-known Dram Tree that once stood near the eastern shore 2 miles south of Wilmington. The ancient and moss-covered cypress tree served since the early eighteenth century as a point at which a crew would partake of a "dram" of grog. It was from the custom of taking the first drink outward bound, and the last drink inward bound, that seafaring men gradually came to know the place as the Dram Tree. The tree stood well out in the river and slightly north of the point. The Dram Tree is shown on the Hamilton Fulton map of 1823 and on another map in 1833. It apparently stood until 1942, when it was pulled down to make way for the North Carolina Shipyard. The first known map to show Dram Tree Point by name was drawn in 1856 by the U.S. Coast Survey (Sprunt 1896:35-36; Moore 1968:47-54; Fulton 1823; Mac Rae and Brazier 1833; U.S. Coast Survey 1856, 1864; Anonymous 1892; USACOE 1895a, 1927b; USCGS 1901a, 1944a; USGS 1979b; NOAA 1992).

Federal Point (Confederate Point)

Federal Point is the large peninsula that divides the Cape Fear River from the Atlantic Ocean south of Wilmington. Federal Point was supposedly named during the early 1790s in honor of the federal government and the ratification of the United States Constitution by North Carolina in 1789. A map engraved for Joshua Potts about 1797 shows Federal Point by name. The peninsula was certainly known as Federal Point well before the Civil War, as it appears on several early to mid-nineteenth-century maps. In 1861 the Confederates changed the name to Confederate Point, and it changed back to Federal Point in 1865 with the occupation of Wilmington and the fall of Fort Fisher. The lower portion of Federal Point was formed into an island when Snow's Cut was made across the peninsula in the early 1930s. At present the extreme southern tip of Federal Point is known locally as Pleasure Island (Herring 1967:102; Potts 1797; USACOE 1827; Mac Rae and Brazier 1833; U.S. Coast Survey 1851, 1853, 1857a, 1857b, 1858, 1859b; Colton 1861; CSAE 1864c; U.S. Coast Survey 1864, 1865a, 1872; New York Herald 1865; USACOE 1870, 1875, 1876a; USGS 1979a; NOAA 1992).

Hospital Point or Mount Tirzah

Hospital Point, the site of the Wilmington Marine Hospital, was located about 3 miles south of Wilmington where the State Ports Authority presently stands. The Marine

Hospital had once been the plantation known as Mount Tirzah, a Hebrew name for a tree similar to the cypress. Although no maps could be located that specifically indicated Hospital Point, several maps did show the location of the hospital. In 1835 the citizens of Wilmington established the Wilmington Marine Hospital for the benefit of sick seamen in port. Funds were raised and the Mount Tirzah property of 150 acres and several houses were purchased from Governor Edward B. Dudley for one thousand dollars. The principal building, a house of two stories, was converted into a hospital and managed by the Marine Hospital Society until April 24, 1855, when the property and the other assets of the society were transferred to the Seaman's Friend Society. The Marine Hospital is first shown on the point on a U.S. Coast Survey map (1856). Following its use as a military hospital during the Civil War, the structure was also used as a pest house during the smallpox plague. On a 1892 map the structure is shown as the Quarantine Hospital. Hospital Point, or the Mount Tirzah property, was occasionally used by the city government for the isolation and treatment of cases of infectious diseases until 1898, when the building burned (Sprunt 1896: 36-37; Hall 2:138; Wilmington Dispatch, February 22, 1898; USGS 1856; U.S. Coast Survey 1865b; USACOE 1876b; Anonymous 1892; USCGS 1901a).

One Tree Point

On maps of the eighteenth and early nineteenth century, One Tree Point was shown located between Deepwater Point and Walden Creek on the west side of the Cape Fear River. One Tree Point, the farthest eastward extension of the shoreline below Walden Creek, is first indicated on the Moseley map (1733) and last appears by name on the Price and Strother map (1807). During the later period the navigation channel passed near this point (Powell 1968:364; Moseley 1733; Hyrne 1749; Anonymous 1778; Potts 1797; Price and Strother 1807).

Orton Point

Orton Point is located on the south side of Orton Creek in Brunswick County. The point was named for Orton, the plantation granted in 1725 by the Lords Proprietors to Maurice Moore, one of the early founders of Brunswick Town. Maurice Moore soon passed ownership of the plantation to his brother, Roger, a member of Governor Gabriel Johnston's council. Roger named the 10,000-acre plantation Orton after the ancestral home of the Moores in England. Orton Point, however, does not appear on maps by name until the early nineteenth century. The first known map to show Orton Point was drawn by the U.S. Army Corps of Engineers in 1827. Orton Point is shown on modern topographic and navigation maps of the lower Cape Fear River (Sprunt 1992:57-58; Moore 1968:13-14; Sprunt 1958:5; Waddell 1989:42; Powell 1968:366; USACOE 1827; U.S. Coast Survey 1856, 1858; USCGS 1901a, 1929, 1944a; USGS 1970a; NOAA 1992).

Peters Point (Merricks Point?)
The present-day Peters Point lies on the east side of the river opposite Sunny Point. This point should not be confused with Point Peter, at the confluence of the Northeast and Northwest Branchs of the Cape Fear River, near Wilmington. This jut of land may have been known historically as Merricks Point as shown on two eighteenth-century maps. On the Edward Hyrne map (1749) Merricks Point is shown across the river northeast of Sturgeon Point. Merricks's dwelling is shown north of the point. An anonymous French map from 1778 also indicates Merricks Point and his house. By 1888 Peter's Point is shown on maps drawn by the U.S. Coast and Geodetic Survey. Peters Point has continued to be shown on modern maps (Powell 1968:379; Hyrne 1749; Anonymous 1778; USCGS 1888, 1901b, 1944a; USGS 1979a; NOAA 1992).

Piney Point
Piney Point appears on the Hyrne map (1749) between the Elizabeth River and Oak Island, then labeled as the "Sand Banks Fronting the Sea." Marsh Island occurs between the river and eastern end of the island. Piney Point is again shown on an anonymous French map drawn in 1778, with the extreme eastern end as marsh. No maps after this date indicate Piney Point. Presently that area south of the Intracoastal Waterway is entirely marsh and forms the northern expanse of Oak Island (Hyrne 1749; Anonymous 1778; USGS 1990).

Point Peter (Negro Head Point)
At the confluence of the Northeast and Northwest branches of the Cape Fear River across from Wilmington, a jut of land lying north of the rivers was known as Negro Head Point during the third quarter of the eighteenth century. As early as 1764 the point is referred to as Negro Head Point in court records. The point was likely granted in the 1720s to Roger Moore, who in turn deeded the 3,000 acres to Peter Mallett and Arthur Magill in 1777. At that time the tract was "well known by name of negroe head Point in Forks of No. East and No. West Rivers." Two years later Magilll sold his part of Negro Head Point to Mallett, who retained the property until 1787. The name of this place has long been erroneously supposed to have been derived from the fact that a Negro's head was said to have been stuck upon a pole there at the time of the Nat Turner insurrection in 1831. How the name originated is not known. During the 1770-1780s Negro Head Point began to be known as Point Peter. Contemporary maps confirm that the name Point Peter originated during that period. The point retains the latter name at present (Waddell 1989:48-49; New Hanover County Deeds, Book H-51, H-234, H-466, L-822; McKoy 1973:38; Anonymous 1775; Anonymous 1781b; Potts 1797; Price and Strother 1807; Dickinson 1848; Turner 1856; U.S. Coast Survey 1856; James & Brown 1870; Gray 1873; Anonymous 1892; USACOE 1895a, 1906, 1937c; USCGS 1901a; NOAA 1992).

Point Winslow
Point Winslow appears on the Shapley map (1662) prepared for William Hilton in the general vicinity of Sunny Point or Reaves Point on the western side of the Cape Fear River. The point was apparently named for Edward Winslow, a crew member on board Hilton's ship. This is the only map known to indicate Point Winslow (Angley 1983:2; Shapley 1662).

Reedy Point
The Hamilton Fulton map (1823) shows Reedy Point located on the east side of the Cape Fear River opposite present-day Mallory Creek, then shown as Read's Creek. Water depths of less than 5 feet are noted off the point. In 1827 the U.S. Army Corps of Engineers mapped the Cape Fear River below the town of Wilmington and indicated the heavily forested Reedy Point to be at this location. A jetty was then extended from the point and angled towards the channel downstream. The origin or individual for whom Reedy Point was named is not known. Presently this section of land north of Barnards Creek is unnamed on navigation or topographical maps (Fulton 1823; USACOE 1827).

Reeves Point (Sturgeon Point, Robbins Point)
The present Reeves Point on the western side of the Cape Fear River above Walden Creek was known during the eighteenth century as Sturgeon Point. The jut of land is shown on the maps of Edward Moseley (1733), Edward Hyrne (1749), and an anonymous French map of 1778 as Sturgeon Point. One source made reference to Sturgeon Point in describing nearby McNight's Shoal as late as 1795. By 1840 Sturgeon Point was called Robbins (or Robins) Point, probably named for the property owner Enoch Robbins. He held 40 acres of improved land and 1,327 acres of unimproved land (Moseley 1733; Hyrne 1749; Anonymous 1778; (Wilmington Chronicle and North Carolina Weekly Advertiser, October 22, 1795; Payne and Brown 1983:53).

Maps of the Civil War period indicate that the Robbins homeplace, or Robbins Point, was located on what is now called Reaves Point. South of the Enoch Robbins property was that of Joel Reaves, whose farm was located at what was then "Reeves Point" but which is now known as Sunny Point. At that time, the respective points of land were named Robbins Point and Reeves Point. Between 1886 and 1888 Reeves Point no longer was shown on maps as the current Sunny Point but named at its present location (Angley 1983:22; U.S. Coast Survey 1857b, 1865a; 1858; CSAE 1864c; USCGS 1886; 1888, 1901a, 1901b, 1929; 1944a, 1944b; USGS 1970a; USGS 1979a; NOAA 1992).

Sunny Point (Howe's Point, old Reeves Point)
During the late eighteenth century Sunny Point was known as Howe's Point, the home of Revolutionary patriot and soldier General Robert Howe. His residence was a large

frame building on a stone or brick foundation located upon a bluff on the western shore of the Cape Fear River north of Walden Creek. From at least 1857 to 1886 the jut of land was called "Reeves Point," named for Joel Reaves who owned a 1,285-acre farm until his death in 1860. Maps from 1886 and 1888 show that between those dates the name Reeves Point was no longer found at the current Sunny Point but was applied to the jut of land to the north formerly known as Robbins Point. After the 1940s both Reaves Point and Sunny Point were shown (Sprunt 1992:57, 60; Angley 1983:22; "Reeves Point" (as Sunny Point) (U.S. Coast Survey 1857b, 1865a; 1858; CSAE 1864c; USCGS 1886); "Reeve's Point" (as Reeves Point) (USCGS 1888, 1901a, 1901b, 1929); "Reaves Point" and "Sunny Point" (USCGS 1944a,1944b; USGS 1970a, 1979a; NOAA 1992).

Smith Island Point

One map from 1876 is known to show Smith Island Point labeled where a dike terminated on the north side of the island. In May 1713 Thomas Smith obtained from the authorities of North Carolina a grant for the island-and presumably the point that bears his name (USACOE 1876a; Stick 1985:13).

Snow's Point (Governors Point, Burringtons Point)

Snow's Point is located on the north bank of Walden Creek, where it flows eastward into the Cape Fear River at Snow's Marsh. Historically it was known as Governor's or Burringtons Point, after George Burrington, the last of the proprietory governors, purchased the property from the first grantee, John Porter. John Porter came from the Albemarle region to the Cape Fear in 1723 and was one of the first grantees of property on the river. George Burrington became the first royal governor in 1724 and established his plantation just above the mouth of present-day Walden Creek about 1725, a year before the new town of Brunswick was laid out. After that date Burrington's residence is shown on the Moseley map (1733), while Governor's Point is shown on the Wimble map (1738), and Burringtons Point is indicated on the Hyrne map (1749). Walden Creek was also previously known as Governors (or Burringtons) Creek. In the late 1750s or early 1760s the Governor's Point plantation was sold to Robert Snow, for whom the point would later be named (Angley 1983:6-7; Waddell 1989:39; Payne and Brown 1983:20; Sprunt 1992:57; Wimble 1738; Hyrne 1749; Collett 1770; Anonymous 1778; Holland 1794; Potts 1797; Price and Strother 1807; USACOE 1827; USGS 1979a).

Sugar Loaf Point (Ellis's Point)

On the Thomas Kitchen map drawn about 1778, Ellis's Point is shown on the eastern shore of the river across from Brunswick Town. The location is slightly north of Sugar Loaf. No other known maps show Ellis's Point. The point is likely associated with Robert Ellis, who was deeded 640 acres of land on the east side of the Cape Fear River on April 21, 1764. On a U.S. Coast Survey (1858) map the jut of land just north of

Sugar Loaf Hill was shown as Sugar Loaf Point. No other known map of this section of river indicates the point by this name. On current navigation and topographical maps, this location below Snow's Cut is shown unnamed (Kitchin 1778; New Hanover County Deeds, Book 17:68; U. S. Coast Survey 1858; USGS 1970a).

Plantations

Thirty-Five plantations have been identified near the Cape Fear, Northeast Cape Fear, and Brunswick Rivers **(Figures 8,9,10,11)**. Descriptions have been provided for the following sites:

- Aspern Plantation
- Bald Head Plantation
- Belleville Plantation
- Belvidere Plantation
- Benevento Plantation
- Bleak House
- Buchoi Plantation
- Clarendon Plantation
- Forceput Plantation
- The Forks Plantation
- Gander Hall
- Glastonbury Plantation
- Governor's Point Plantation
- Greenfield Plantation
- Hallett Plantation
- Haulover Plantation
- Hawfield Plantation
- Hilton or Maynard Plantation
- Howe's Point Plantation
- Kendal Plantation
- Lilliput Plantation
- Mallory Plantation
- MacKnight Plantation
- Mount Tirzah/Spring Garden
- Negro Head/Point Peter
- Nesses Creek/Farifields
- Old Town Plantation
- Orton Plantation
- Osawotomie Plantation
- Pleasant Oaks/The Oaks
- Russellborough/Bellfont
- Sans Souci Plantation
- Sedgeley Abbey
- Snow's Cut Plantation
- York Plantation

Aspern Plantation

Four miles below the city of Wilmington, on the Brunswick County side of the river, was located the rice plantation known as Aspern. Thomas C. McIlhenny, owner of Aspern and other plantations in the region, placed this property up for sale in March 1880. McIlhenny had owned the plantation for more than twenty years. Aspern was described as having 100 acres of rice land that could be increased to as much as 250 acres of production. There were also 500 or 600 acres of upland, and about 100 acres had been cleared and planted in cotton, ground peas, and corn tended by slave labor. Marl was also abundant on the property (Wilmington Star, March 30, 1880).

Bald Head Plantation

One of the earliest land grants on the lower Cape Fear River was passed to landgrave Thomas Smith in 1713. It included 810 acres of dry land and marsh on what was then "commonly called Cape Island" and is today known as Smith or Bald Head Island. The land was passed as an inheritance to Benjamin Smith, who owned it until 1820. In 1790 Smith deeded to the Commissioners for regulating Pilotage and Navigation of the Cape Fear 10 acres on the island to be used for the purpose of erecting a lighthouse. Smith was forced to place his property up for sale in 1820 when it was sold by a deputy marshal to Joseph G. Swift. In 1828 the United States purchased from the heirs of Benjamin Smith one remaining piece of property for the construction of a fort (Stick 1985:16, 41-42; Secretary of State, Grant Book 2-395; McKoy 1973:30-31, 123; New Hanover County Deeds, Book I-325; R-328).

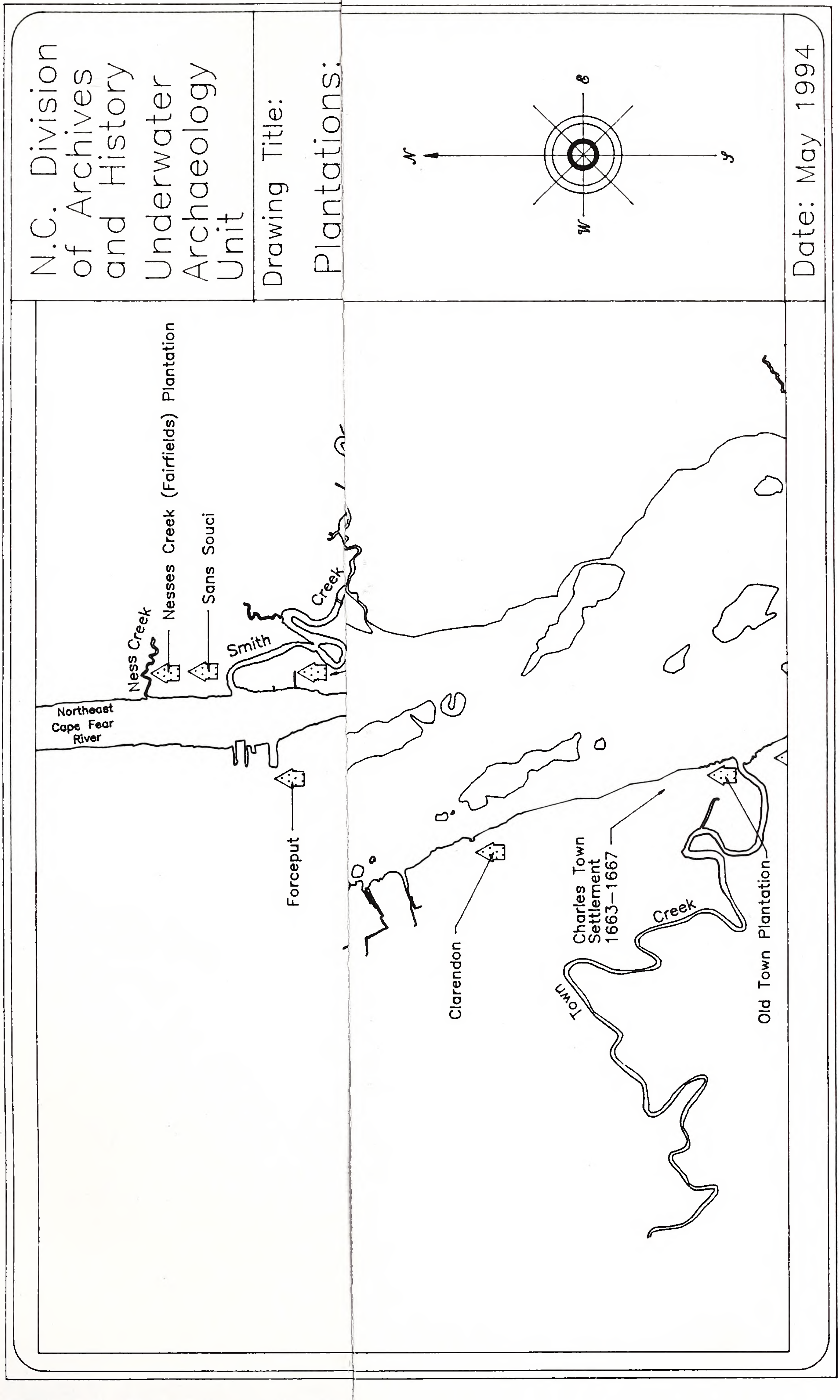
Belleville Plantation (Brunswick River)

Belleville plantation was located on the Brunswick River above the plantations of Buchoi and Glastonbury and partially across the river on Eagles Island. The plantation, owned by Gen. Hugh Waddell, was described in detail when it was advertised for sale in late 1844. The notice of the sale of Belleville plantation read:

> Will be sold at auction in Wilmington on the first day of January next, that well known Rice Plantation "Belleville" situated on the West branch of the Cape Fear river, nearly opposite the town of Wilmington. There are near 200 acres of the swamp, well adapted to the culture of Rice, and most of it now in cultivation. These lands, as also those in the immediate neighborhood, are believed to be less liable to injury, either from freshets or salt water, than any on the river, being midway between the extreme points of the great island [Eagle's Island] on which they for the most part be, and in an excellent pitch of the tide for draining and flowing. The High-land settlement is a most advantageous one, fronting one mile on the river, with a sufficiency of land in cultivation to support the hands necessary to the Rice Farm. Upon the premises is an excellent Dwelling House, containing eight rooms, as also all necessary out-building, a large Barn, Winnowing House, etc. (Wilmington Chronicle, November 20, 1844).

Whether or not the plantation was sold at that time is not known, but two years later Belleville was again placed up for private sale. At that time the plantation was said to contain "200 acres of prime rice land . . . and at the very best pitch of the tide." There was also about 300 or 400 acres of cropland in the uplands. The structures at the plantation consisted of a "Dwelling house, Kitchens, Barns, Stables, Negro Houses, . . . and a Rice Thresher" (Wilmington Commercial, December 21, 1846). It is likely that Belleville plantation was not sold outside of the Waddell family, as General Hugh Waddell's son, John, was later said to have owned Belleville in addition to three other plantations farther up the river (Waddell 1989:48).

Belleville eventually did pass from the Waddell family ownership in the 1890s when Gov. Daniel L. Russell purchased the plantation after selling his previous residence known as Winnabow. Russell tried unsuccessful to grow rice at Belleville. In 1897 Mr. W.R. Boyd, superintendent of Governor Russell's plantation, announced that worms were threatening the rice fields on Eagle's Island that Russell had leased to a group of black farmers known as "the syndicate." The worms did considerable damage to the rice fields before Boyd brought them under control (Wilmington Messenger, July 15, 1897). Governor Russell had built at Belleville in late 1900 a large dwelling to which he retired after his term as governor expired the following January. Governor Russell died at Belleville on May 14, 1908 (Wilmington Messenger, September 30, November 11, 1900; Reaves 1988:30).


N.C. Division of Archives and History
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Nesses Creek (Fairfields) Plantation
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Ness Creek
Smith
Creek
Northeast Cape Fear River
Forceput
Clarendon
Charles Town Settlement 1663–1667
Town
Creek
Old Town Plantation

Figure 8. Plantations: Smith

Belleville Plantation (Brunswick River)
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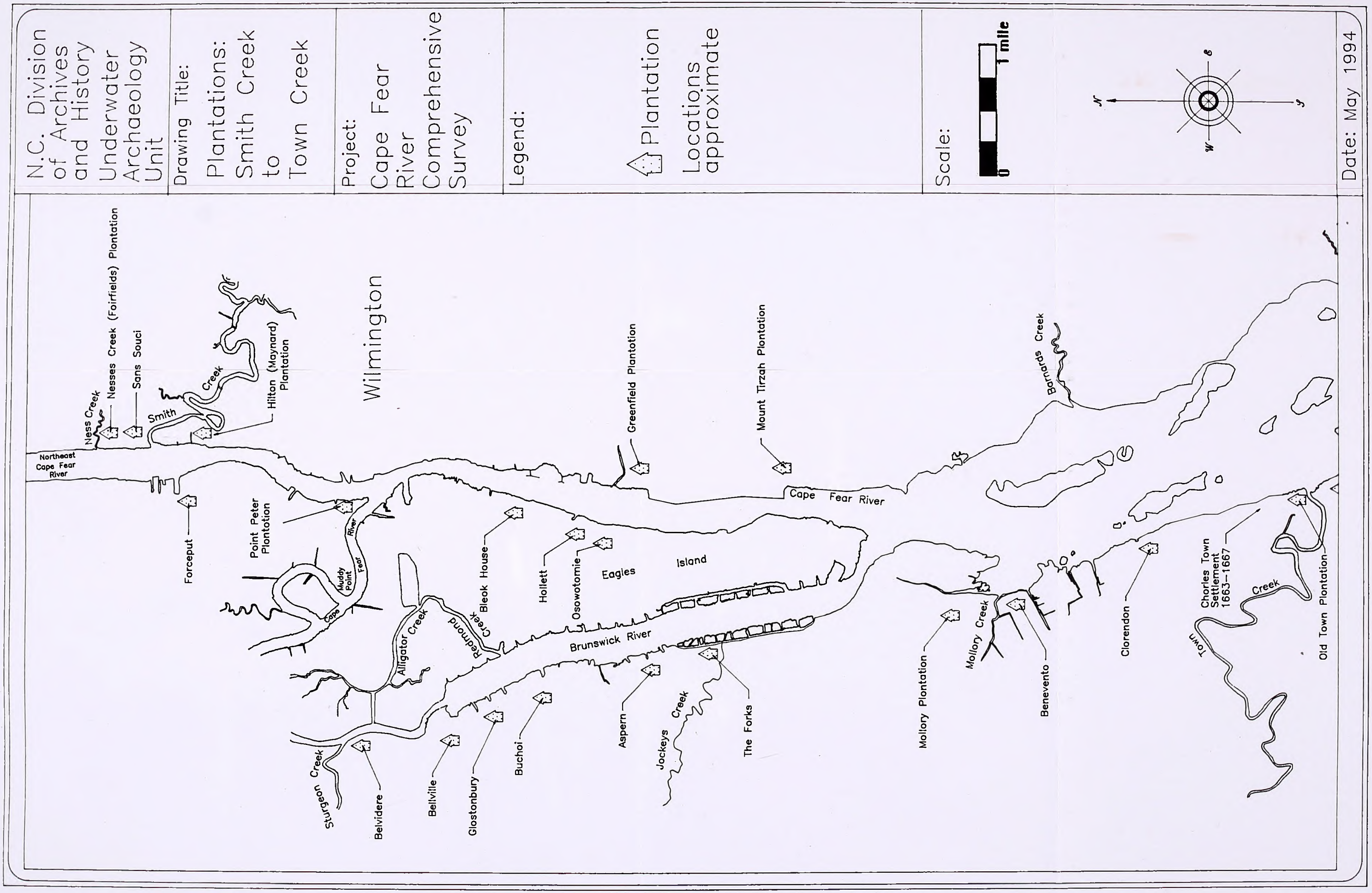
N.C. Division of Archives and History Underwater Archaeology Unit
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Plantations: Smith Creek to Town Creek
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Cape Fear River Comprehensive Survey
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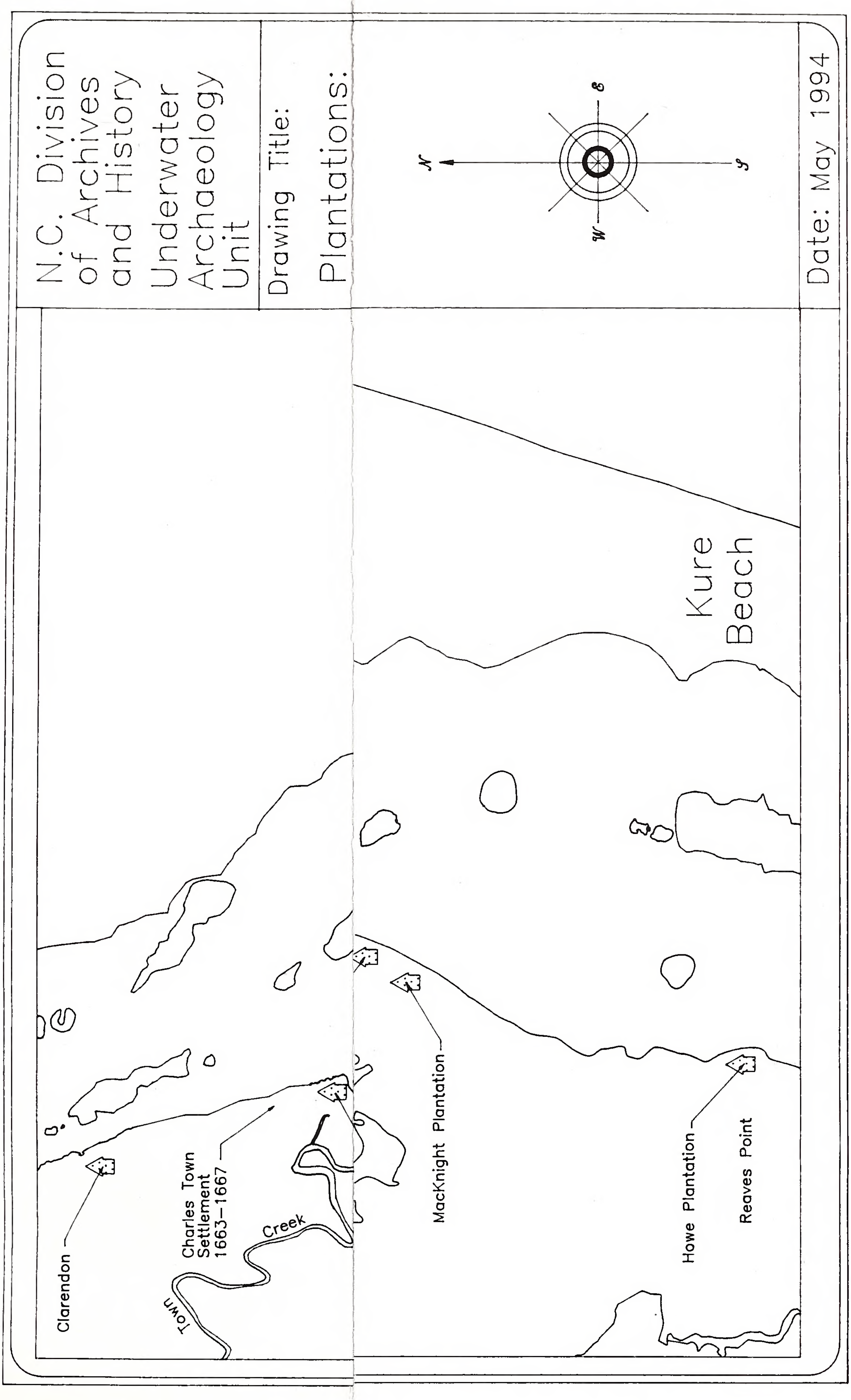
Date: May 1994
Nesses Creek (Fairfields) Plantation
Sans Souci
Ness Creek
Smith Creek
Hilton (Maynard) Plantation
Wilmington
Northeast Cape Fear River
Forceput
Point Peter Plantation
Muddy Point
Cape Fear River
Greenfield Plantation
Mount Tirzah Plantation
Cape Fear River
Bleak House
Hollett
Osowotomie
Eagles Island
Alligator Creek
Redmond Creek
Brunswick River
Sturgeon Creek
Belvidere
Bellville
Glostonbury
Buchoi
Aspern
Jockeys Creek
The Forks
Barnards Creek
Mallory Plantation
Mallory Creek
Benevento
Clarendon
Charles Town Settlement 1663–1667
Town Creek
Old Town Plantation

Figure 8. Plantations: Smith Creek to Town Creek.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Underwater Archaeology Unit
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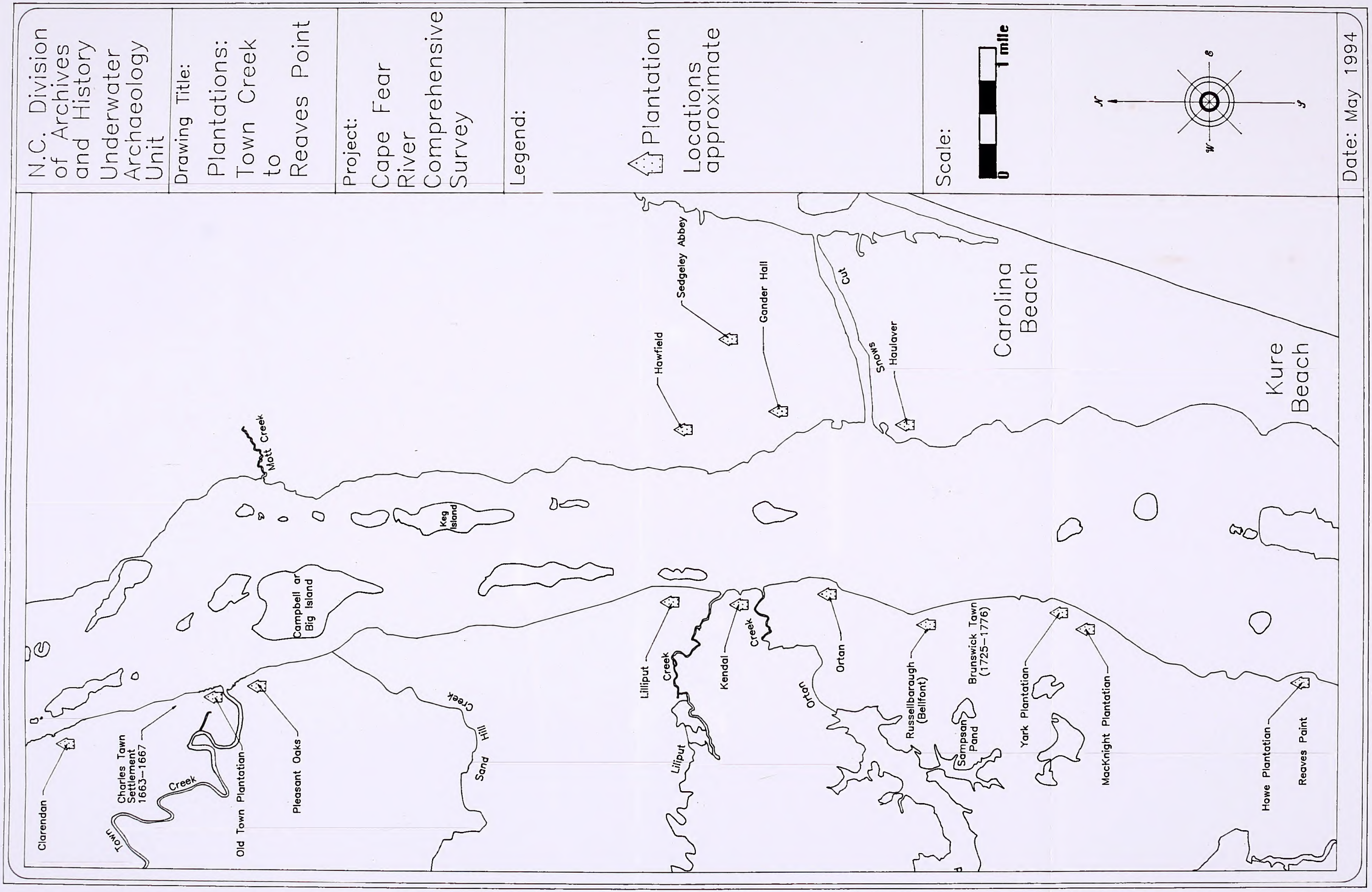
MacKnight Plantation
Howe Plantation
Reaves Point

Figure 9. Plantations: Town C


N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title:
Plantations: Town Creek to Reaves Point
Project:
Cape Fear River Comprehensive Survey
Legend:
Plantation
Locations approximate
Scale:
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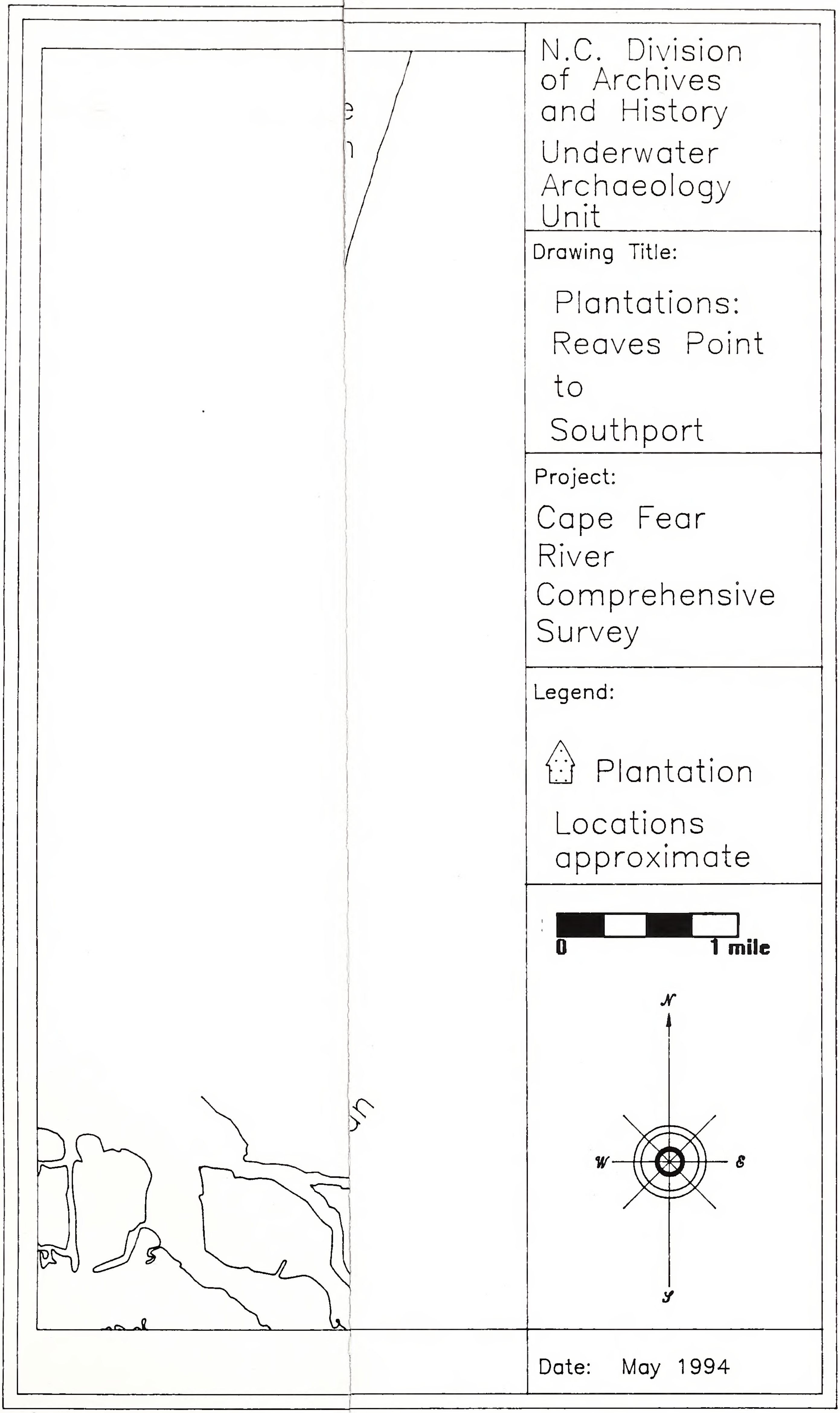
Date: May 1994
Sedgeley Abbey
Gander Hall
Cut
Hawfield
Snows
Haulaver
Carolina Beach
Kure Beach
Mott Creek
Keg Island
Campbell or Big Island
Clarendon
Charles Town Settlement 1663–1667
Town
Creek
Old Town Plantation
Pleasant Oaks
Sand
Hill
Creek
Lilliput
Creek
Liliput
Kendal
Creek
Orton
Orton
Russellborough (Belfont)
Brunswick Town (1725–1776)
Sampson Pond
York Plantation
MacKnight Plantation
Howe Plantation
Reaves Point

Figure 9. Plantations: Town Creek to Reaves Point.


N.C. Division of Archives and History
Underwater Archaeology Unit
Drawing Title:
Plantations: Reaves Point to Southport
Project:
Cape Fear River Comprehensive Survey
Legend:
Plantation
Locations approximate
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1 mile
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W
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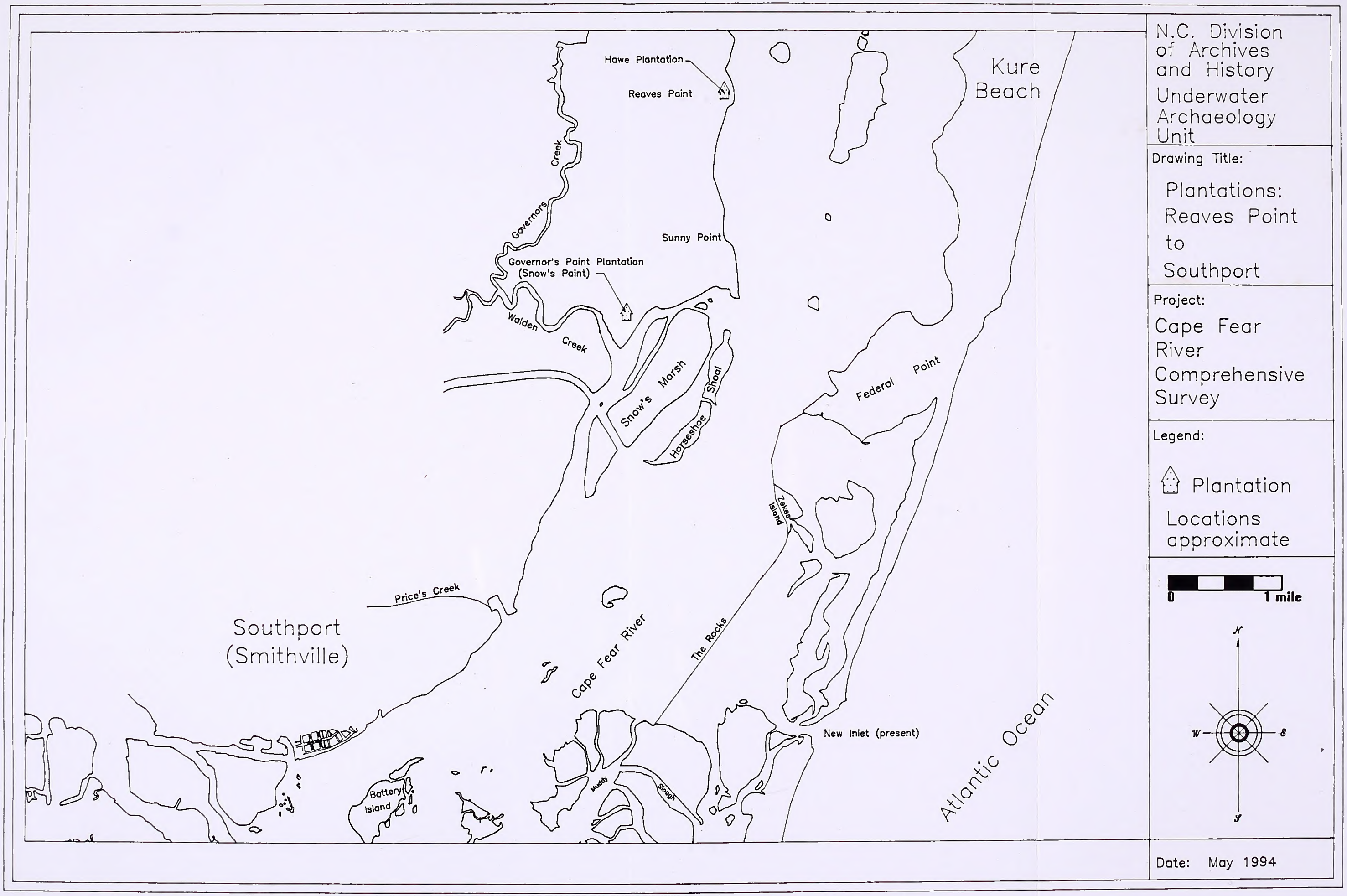
Date: May 1994

Figure 10. Plantations: Reave


N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title:
Plantations: Reaves Point to Southport
Project:
Cape Fear River Comprehensive Survey
Legend:
Plantation
Locations approximate
0
1 mile
N
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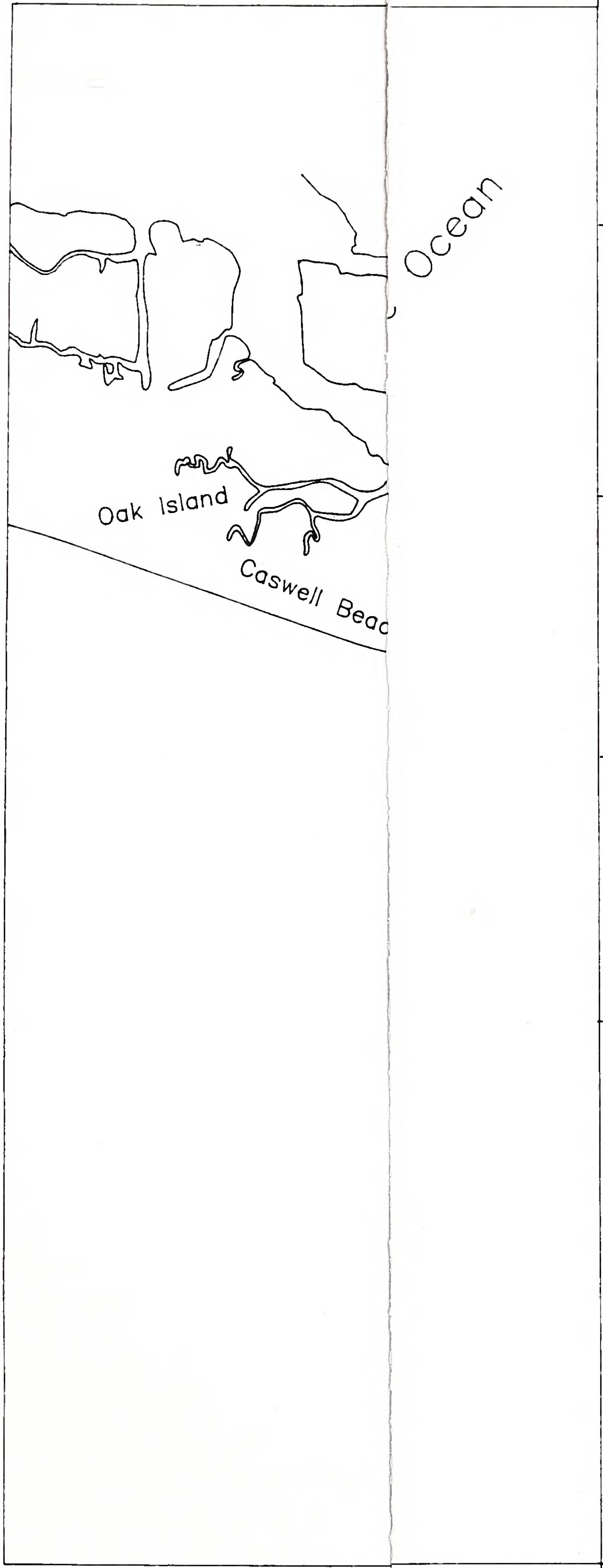
S
Date: May 1994
Hawe Plantation
Reaves Point
Kure Beach
Governors Creek
Sunny Point
Governor's Point Plantation (Snow's Point)
Walden Creek
Snow's Marsh
Shoal
Horseshoe
Federal Point
Zekes Island
Price's Creek
Southport (Smithville)
Cape Fear River
The Rocks
New Inlet (present)
Atlantic Ocean
Battery Island
Muddy Slough

Figure 10. Plantations: Reaves Point to Southport.


Ocean
Oak Island
Caswell Beac

N.C. Division of Archives and History
Underwater Archaeology Unit

Drawing Title:

Plantations: Southport to Cape Fear

Project:

Cape Fear River Comprehensive Survey

Legend:

⌂ Plantation

Locations approximate

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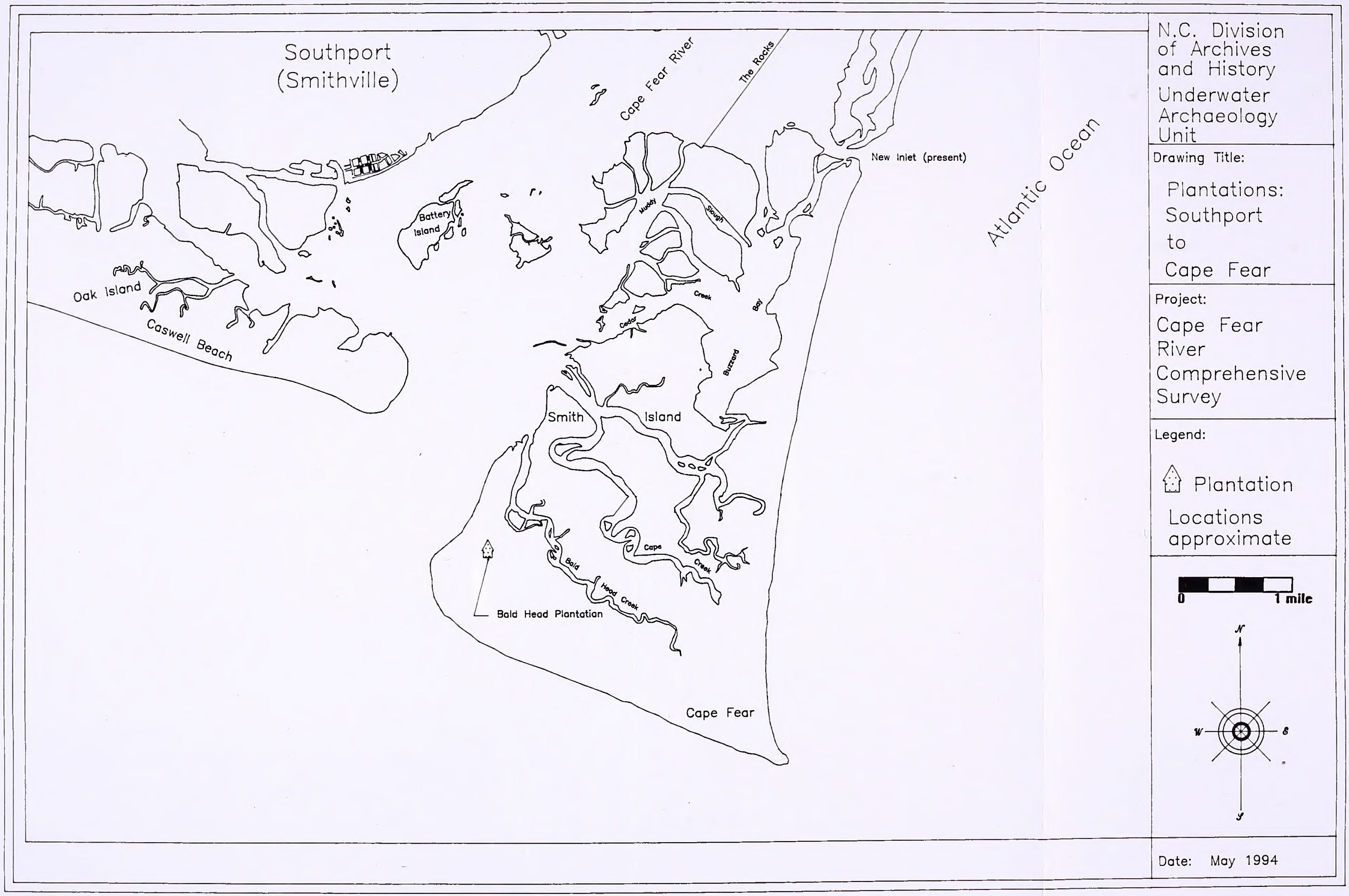
Date: May 1994

Figure 11. Plantations: South


Southport
(Smithville)
Cape Fear River
The Rocks
New Inlet (present)
Atlantic Ocean
Battery Island
Oak Island
Caswell Beach
Muddy
Slough
Creek
Cedar
Bay
Buzzard
Smith Island
Cape
Creek
Bald
Head
Creek
Bald Head Plantation
Cape Fear
N.C. Division of Archives and History
Underwater Archaeology Unit
Drawing Title:
Plantations: Southport to Cape Fear
Project:
Cape Fear River Comprehensive Survey
Legend:
Plantation
Locations approximate
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Date: May 1994

Figure 11. Plantations: Southport to Cape Fear.

Belvidere Plantation (Brunswick River)
The plantation immediately north of Belleville, known as Belvidere, was originally owned by Col. William Dry about the time of the American Revolution. Belvidere plantation was located nearly opposite the city of Wilmington on the opposite side of Eagles Island, and it was one of the last plantations to abandon rice production for other means. Dry's son-in-law, Benjamin Smith, later owned the property, where he established his main residence. One of the prominent visitors to Belvidere was President George Washington, who stopped by the plantation on April 26, 1791, to have breakfast with Benjamin Smith. During the war Smith served as a colonel in the Continental army and aide-de-camp to General Washington. Smith was elected governor of North Carolina in 1810 and died in 1826 (Asbury 1966:1; Waddell 1989:48; Reaves 1988:34).

By June 1831 Belvidere plantation was advertised for sale by the then-current owner, William W. Jones. The following lengthy description of Belvidere given by Jones appeared in the Wilmington Cape Fear Recorder on June 29, 1831:

> My "Belvidere" plantation, formerly the residence of General Smith, on the Cape Fear River in North Carolina. It lies opposite to and in sight of, and two miles from Wilmington on the stage road leading from Wilmington to Fayetteville and the road leading to Georgetown, S.C. This Plantation contains at least 200 acres of tide swamp, 160 acres of which are banked and ditched and now under cultivation. In fertility, I don't know that it combines more advantages than any other rice plantation in this State. In the first place, it is situated precisely in that pitch of the tide which exempts it from the effects of the salt water and freshes, and it is also protected by woodlands adjoining, that my losses by storms have been very inconsiderable which renders a crop certain, let what will happen. Last though not least, it is intersected by creeks in such a manner that it can be harvested in one third less time than it would otherwise require. There are about nine hundred (900) acres of Pineland which is poor and will remain so forever, except some fifty (50) or sixty (60) acres perhaps which has a clay foundation, the rest would require manure every year and with such lands I never meddle. It is well watered, having many good springs; and a well of as good and as cold water as can be found in the lower part of the country.
>
> Improvement-On the premises are a comfortable and convenient two-story dwelling house and a building one and one half story with kitchen, wash house, stable, carriage house, smokehouse, etc. A barn, 110 feet long, 40 feet wide, two story's high in which is a threshing machine and other machinery. Also overseer's houses and kitchen, all of which buildings are of brick, put up in the most substantial manner. There is another barn built of wood directly at the river from whence the rice can

> be conveniently thrown into a flat or vessel and any vessel that can come over the bar can come to the barn. I have endeavored to render as permanent as possible all the repairs and improvements. I think it is upon the whole the handsomest and most pleasant residence in this part of the country. The improvements were made with the expectation that it would be my chief residence all my life, but the state of my health requires that I should reside more permanently in a high and dry part of the country (Wilmington Cape Fear Recorder, June 29, 1831).

Belvidere plantation was owned from 1858 to 1860 by James Moore, who sold off 837 acres of the property for $7,300. During 1860 a total of 494,100 bushels of rice were grown on the estate (Wells 1972:n.p.). In 1868 Dr. H. H. Robinson sold the plantation to C. H. Robinson, for $6,000. The tract contained 1,300 acres of land, 200 of which were unimproved rice lands, and about 40 acres of cleared uplands, with the balance in timber. Robinson proposed to establish in connection with parties in New York a large vineyard and truck garden and gradually to work into the rice lands and put them under cultivation (Wilmington Star, February 23, 1868). Turning wet rice lands into dry crop production appears to have been the direction in which most of the locals were heading. As one article stated, "Truck farming is daily growing more popular in our vicinity, and so well adapted is our section to this kind of business that much profit will be realized by those now engaged in it, and the number of truck farms will be immense" (Wilmington Star, March 19, 1869).

A group of Wilmington citizens on tour included a stop at Belvidere in April 1874 and observed the trend of replacing rice cultivation on the Brunswick River with other crops. They witnessed that the raising of "English peas, cucumbers, cabbage, corn and other vegetables" had nearly replaced the growing of rice with the introduction of a working drainage system. They were highly in favor of this "dry culture system" as being more profitable per acre. One hundred dollars per acre was now thought possible (Wilmington Star, April 14, 1874; Hall 1980:22). A general decline in rice production can be inferred by the fact that in August 1880 the new owners of Belvidere, J. D. McRae and Isaac Bates, had 700 acres planted in corn and only 130 acres in rice (Wilmington Star, August 11, 1880).

A barn on the Belvidere plantation belonging to McRae and Bates was destroyed by fire in March 1881. The barn contained "quite a large amount of corn, with about fifteen hundred empty bags, a lot of tools, a quantity of cotton seed, etc. (Wilmington Weekly Star, March 11, 1881). The importance of converting rice lands to other purposes was discussed as late as 1889. An editorial in a local Wilmington newspaper stated that the question of conversion was raised in a suggestive way more than fifteen years previously.

> It is not likely that all the rice fields in this section could be profitably cultivated in vegetables; but with the aid of pumps with wind mills or steam engines as the motive power, it is probable that a very large

> proportion of these lands, inexhaustible in fertility, can be made to produce in perfection large crops of potatoes, cucumbers, tomatoes, beans and other vegetables.

In a specific reference to Belvidere plantation, the editorial further states:

> We are not prepared to say that the proposed change is entirely practicable, but we have seen fine cabbage growing on the rice field of the old Belvidere Plantation, in Brunswick County, now owned by Mr. J. D. McRae. By means of a pump operated by a wind-mill, the field was kept sufficiently dry, and the soil was as mellow and friable as that of a highly cultivated garden (Wilmington Star, May 25, 1889).

One of the brick buildings, believed to be the overseer's house, was still standing as late as 1958. The one-story building, with a basement and a wooden addition to the rear, had been occupied by the Evans family until 1947. In addition to the standing structure, the remains of a ballast stone building were still visible at that date (Lee 1980:22; Asbury 1966:2).

Benevento Plantation

In January 1842, 300 acres of land known as "Benevento" located at the Cape Fear River and Mallory Creek [north of Old Town Creek on the west side of river] were advertised for sale by Samuel Potter of Smithville. The plantation property contained 157 acres of "first rate tide swamp land at a good pitch of the tide" and adjoined the lands of Joseph H. Watters (Wilmington Chronicle, January 5, 1842).

Bleak House (Eagles Island)

Bleak House was located on Eagles Island opposite Kidder's Mill in the extreme southern part of Wilmington and was the property of H. U. Butters in 1899. The plantation was leased by the state penitentiary where rice harvesting was done by convict labor. George H. Cannon, superintendent of the penitentiary farm, stated that the crop at Bleak House yielded from 40 to 50 bushels of rough rice per acre. A charter was issued October 30, 1902 to the Cape Fear Rice Company. The company owned two rice plantations on Eagles Island-"Bleak House," containing 120 acres of rice land, and "Osawotomie" plantation, of 145 acres of rice land (Wilmington Messenger, September 13, 1899; Wilmington Dispatch, November 29, 1902; Hall 1980:247).

Buchoi Plantation (Brunswick River)

Buchoi was situated on the west side of the Brunswick River about 4 miles from Wilmington and on a portion of Eagles Island. During the late eighteenth century, Judge Alfred Moore was the first owner of the plantation known as Buchoi. The name appears to have been taken from one of the old Moore estates on Goose Creek, South

Carolina, that bore an Indian name and was spelled in the records as Boo-Chawee (Sprunt 1992:57; Waddell 1989:48). Alfred Moore died in 1810, and his will provided that Buchoi plantation should pass to his son Alfred Jr., with a portion of the lands west of the river going also to his daughter, Anne, and to her husband, Maj. Hugh Waddell. The Waddells and his other daughter, Sarah, also received sizable tracts of land on Eagles Island, both above and below the causeway that crossed the island and provided access to the Wilmington ferry. In the early nineteenth century a section of Buchoi was owned by W. C. Lord, who advertised the sale of the plantation in November 1838. (Angley 1989:1-2).

Alfred Moore the younger held ownership of Buchoi and the associated lands on Eagles Island until 1830, at which time he conveyed them by deed of gift to his daughter Elizabeth, wife of Frances Nash Waddell. The Waddells' disputed sale of Buchoi to John L. Hewitt of Wilmington in 1839 led to a complex case before the North Carolina Supreme Court. John L. Hewitt advertised sale of the property in April 1842 at public auction at the courthouse in Smithville (Southport). At about that time the rice plantation consisted of 200 acres of tide swamp, of which 100 were under cultivation and 40 were cleared upland. A large dwelling was constructed on the upland, along with a large brick barn and other improvements (Angley 1989;2-3; Wilmington Advertiser, November 16, 1838; Wilmington Chronicle, April 27, 1842; Hall, 1980;22).

In 1851 Thomas C. Mcllhenny of Wilmington became part owner of Buchoi. On May 17, 1857, Mcllhenny sold Buchoi to Frederick J. Lord of Brunswick County. The 1860 census shows that under the ownership of Lord, Buchoi produced nearly 200,000 pounds of rice under the labor of fifty-three slaves. Frederick Lord placed Buchoi up for sale at auction in Smithville on June 30, 1874. Capt. Augustus W. Rieger, who already owned Glastonbury plantation, which he purchased in 1869, may have purchased Buchoi-then spelled Beauchoix-from Lord in 1874. Captain Rieger died at his country home plantation on December 2, 1903 (Angley 1989:11; Wilmington Star, March 12, 1869, June 30, 1874; Wilmington Messenger, December 3, 1903).

Clarendon Plantation

A short distance above Old Town Creek, at Mallory Creek, was built Clarendon plantation. John Grange was the first owner, having been granted thousands of acres of land on November 13, 1728. The plantation was named for the earl of Clarendon, first of the Lords Proprietors. As with most old plantations, Clarendon had a long series of owners. During the American Revolution the plantation passed form John Ancrum to William Dry, to John Harleston, and to Nicolas Evaleigh. After the Revolution it belonged to Benjamin Smith, James Carson, and John Poisson successively. Marsden Campbell owned Clarendon in the early 1830s; there his youngest daughter, Frances, was married to Hugh Waddell on May 23, 1833 (Wilmington People's Press, May 29, 1833; Wilmington Star-News, March 7, 1974). When Campbell wished to sell Clarendon in 1834 he placed the following notice in a local paper:

> For Sale the rice plantation on which I reside in Brunswick County five miles below Wilmington called Clarendon. In situation and fertility it is surpassed by no place on the Cape Fear River. It contains by title 335 acres of tide swamp; 654 acres upland. There are 220 acres of low land in a high state of cultivation, which have averaged upwards of seventy-two bushels of rice to the acre. On the premises are a comfortable dwelling house &c. a brick barn with extensive framed Mill-houses attached and two threshing Mills. Negro quarters capable of containing one hundred hands well built of brick, and covered with Dutch pantile; a comfortable house for Overseer, a grist mill with a plentiful supply of water and all other conveniences for such an establishment, which need not be described as those wishing to purchase will of course visit the Estate. There are also 50 to 60 head of Cattle and as many sheep (People's Press and Wilmington Advertiser, September 18, 1834)

William Watters purchased the plantation and built a replacement mansion for the original on his new property. The two-story frame antebellum residence was referred to as "Green House." It was painted a pine green, which blended with the forest of tall pines surrounding the building. This house burnt in March 1974 after being used mainly for storage and an artist studio. Census records indicate that in 1860 William Watters and Daniel Baker were co-owners of Clarendon. Between the two men, rice production on the plantation exceeded 400,000 pounds. By 1879 the plantation had been sold to Col. S. L. Fremont, and by 1884, it was owned by Preston Cumming & Co. On December 18, 1884, a large rice barn at Clarendon plantation belonging to Preston Cumming was destroyed by fire. Also lost in the fire were several pounds of rice and machinery. Although most of the crop had already been sold and the rice barn had been insured, the fire prompted the owners to place the plantation up for sale. Three days later, Preston and Cummings gave notice that the 1,000-acre Clarendon plantation would be sold (Sprunt 1896:38; Waddell 1989:47; Watters 1961:47: Wilmington Star, June 5, 1879; December 19 and 21, 1884; Wilmington Star-News, March 7, 1974).

By the close of the nineteenth century, Fred Kidder and H. Walters owned Clarendon plantation and grew rice there. In 1896 the first rice crop harvested came from the Brunswick plantation. On the last day of September 1916 the subsequent owner, J. W. Brooks, a prominent wholesale merchant of Wilmington, sold Clarendon to J. E. Cowell, a Wilmington barber, for $20,000. Clarendon, once known as the old Kidder farm, was described as one of the most fertile in Brunswick County. Bounded on the north by Mallory Creek, Clarendon fronted the river for nearly a mile and stretched back a considerable distance. Earlier, a canal dug on the plantation allowed river vessels to unload and take on cargoes with a minimum of trouble. Clarendon was still well timbered and considered ideal for stock raising. (Sprunt 1896:38; Wilmington Messenger, July 27, 1894; Wilmington Star, October 1, 1916).

Brooks's ownership and attempt at stock raising at Clarendon lasted only a few years. By July 1923 the plantation had been sold to D. H. Lippitt, a member of the firm of Alexander Sprunt and Son, Inc. Lippitt contracted in July with Morton and Cox, local builders, to construct a new mansion, the third at Clarendon, in the Mount Vernon style. The new place was to be maintained as a shooting lodge and country home for Lippitt during part of the year. His new home along the river would be made of brick, three stories in height, and would contain twelve rooms. The roof would be completely coppered, as opposed to the ceramic method. A terraced lawn would be maintained between the house and the river. Cost of the construction was estimated at $30,000. D. H. Lippitt sold his plantation in July 1944 for $50,000 to Cornelius and Wilma Thomas of Wilmington (Wilmington Star, July 27, 1923; Wilmington News, July 17, 1944).

Clarendon plantation has been associated with the location of the early Charles Towne settlement of 1664-1667. Excavations conducted at the plantation since 1957 and the presence of a standing structure known as the "smoke house" have lent credence to this fact. The smokehouse, constructed of old English corner bond brick, possibly brought from Great Britain, were placed in the French Basketweave design. Early-style ceramic pantiles were used as a roofing material. It is thought that this structure was the powder magazine for the Charles Towne settlement (Wilmington News, July 17, 1944; Wilmington Star-News, March 7, 1974).

Forceput Plantation

On April 21, 1778, Roger Moore and his wife, Mary, sold for £200 to William Hill a tract of 400 acres on the west side of the Northeast Cape Fear River, about 2 miles from Wilmington. The plantation became home for William Hill who had moved from Boston to Brunswick Town. When the British were preparing to burn Brunswick Town in 1776, William Hill fled and eventually purchased the property that he called "Forceput." Margaret Hill, the wife of the deceased William, transferred by deed the ownership of Forceput to her son, William Henry Hill, in 1788. That same year John Hill, the brother of William Henry, purchased the plantation known as Fairfields, which lay across the river (New Hanover County Deeds, Books G-311; I-74; K-149).

By 1791 William Henry Hill, John Hill, and Nathaniel Moore Hill, who appear to have been co-owners at the time, sold Forceput to their brother, Thomas Hill, for £1,200. In 1804 Thomas Hill sold the 400-acre plantation of swampland and high ground to Henry Watters for £5,000. It is unknown whether or not Thomas made improvements to the plantation during his thirteen-year ownership, but the price he received for the sale of the property had significantly increased during the period. By 1812 Henry Watters was deceased and had willed the plantation to his heirs. Unable to satisfy the levy against the property, the local sheriff placed Forceput up for sale at auction on August 8, 1812. Archibald M. Hooper purchased the land with a high bid of $1,250, and recorded the deed in 1814 (New Hanover County Deeds, Books K-149, P-130).

The plantation remained in the Hooper family during the next forty years. On January 4, 1855, George D. Hooper, Johnson J. Hooper, and John D. Hooper, three sons of Archibald Hooper, along with Francis N. Waddell Jr., all then in possession of the land, sold Forceput to Arthur J. Hill for $500. Ownership of Forceput is obscure during the period of the Civil War, but following the conflict county tax lists indicate David Barber (1885) and Thomas Evans (1890) each in possession of 175 acres. By 1910 a deed had been proved in favor of a Theodore Empie as owner, who apparently sold off the plantation to commercial developers. The following year the Pocomoke Guana Co. transferred the 400-acre tract by deed to the American Agricultural Chemical Company. The tract has remained an industrial site to the present (New Hanover County Deeds, Book 60-680; Wilmington Star, May 26, 1911).

The Forks Plantation

The plantation just north of Clarendon was known as The Forks and originally consisted of 6,500 acres on the west bank of the Cape Fear river and 700 acres of rice land on Eagles Island. The Forks was first owned by Richard Eagles Sr., one of the first settlers to come to the Wilmington vicinity about 1725. Richard Eagles was originally from Bristol in England but had come to the lower Cape Fear from Charles Town (Charleston), where he had been a merchant and planter. On February 17, 1737, King George II granted Richard Eagles the major portion of a "big island" across the Cape Fear River from the small village of Newton (later called Wilmington). Through his marriage to Elizabeth Crichton, Richard was also related to William Dry, who also owned land on Eagles Island. On January 12, 1738, John Watson of Newton deeded 540 acres at The Forks to Richard Eagles, adding more acreage to his original grant (Reaves 1988:24; Angley 1989:3; Hall 1980:22).

In 1757 Eagles deeded to his daughter Elizabeth's husband, J. Davis Jr., land on the island now known as "Eagles Island." At his death by about 1758, Richard Eagles Sr. left all of his "lands, cattle, horses, and slaves, except a wench, Hannah Burrows, and her children" to Richard Eagles Jr. To Thomas Eagleson, the son of Hannah, Richard Sr. left £100 and a plantation called "Cowans." To his son Richard Eagles Jr., he bequeathed his Wilmington lots and unspecified plantation lands, along with seventy-three slaves and a large quantity of plantation implements and household furnishings (Reaves 1988:24; Angley 1989:3; Hall 1980:22).

Richard Eagles Jr., married the former Margaret Henrietta Bugnion. In 1765 Richard Eagles Jr. sold to Anthony Ward, merchant of Wilmington, land on Eagles Island that was part of the patent land that John Watson had sold to his father. In his will dated March 31, 1769, Richard Eagles Jr. left to his son, Joseph, "the House Plantation, saw & grist mills" at The Forks. To his daughter Susanna, future wife of Alfred Moore, he left several additional Wilmington lots, land on the west side of the Brunswick River, and "also one third part of all the Land I now own on the Island commonly called Eagles Island." To his sister, Elizabeth Davis, he left "the House she now lives in on the No. side of the mill pond with the field that is fenced in as long as she lives." As also expressed in his will, "Tis my wish and desire that Mr. William Dry have a title to a certain tract of land bought of my father, Richard Eagles, and not confirmed. Land being on the Island near said William Dry's 'Brick House' on the Island, he making my heirs title to one acre out of same on side next to Wilmington" (Reaves 1984:25-26; Angley 1989:4-5; Andrews 1934:316; Schaw 1934:316).

Joseph Eagles married Sarah Read Eagles and had two children. When Janet Schaw passed through Wilmington on her travels in 1775, she stopped at The Forks. Ms. Schaw was favorable impressed with Joseph and his plantation. She briefly noted in her journal: "Mr. Eagle . . . is a most amiable young man. We stayed all the forenoon with him, saw his rice mills, his indigo works and timber mills." By 1784 Joseph Eagles was the owner of some 3,060 acres of land in Brunswick County, as well as two town lots in Wilmington. His mill facilities on the present Jackeys Creek survived destruction during the Revolution and were still in operation in 1787 (Reaves 1984:26; Angley 1989:5-7; Schaw 1934:148). In a transaction between himself and his brother-in-law, Colonel James Read, Joseph Eagles referred to his mill facilities and the shipment of timber and shingles by boat. He rented to Read for a mere twenty shillings per year the following:

> . . . all that messeuse or tenement and tract . . . of Land situated...on the North side of the Mill pond . . . containing sixty acres . . . also the use benefit and privilege of cutting felling and carrying away cypress timber for the purpose of making shingles and for other uses in the said Mill pond . . . and carrying the said timber and shingles down the said pond to the Saw Mill of the said Joseph Eagles and landing them on the land at the said Saw Mill and from thence loading the same in boats and otherwise carrying them down the creek for transportation to the North West river and for that purpose with Boats of any kind or construction to Navigate at all times the said Mill Pond and Creek . . . (Brunswick County Deeds, Book B, 327-328; Angley 1989:7).

Joseph died in 1791 leaving the property to his sons, Richard III and Joseph Jr., the first having died in 1811 and the second in 1827, each without heirs. As only an aunt, the wife of Alfred Moore remained, the Eagles family name disappeared from the annals of North Carolina history. On June 12, 1806, Richard Eagles III, a "doctor of Physic" and a graduate of the University of North Carolina, sold all of the Eagles Island land "being in Great Island opposite Wilmington and commonly called Eagles' Island," except for 108½ acres assigned to other heirs, to Maurice Moore, of Brunswick County, for $11,000. Later that year Moore deeded the land, including Eagles' Mill Dam and Pond, to Alfred Moore Jr. In 1835 the vast majority of the former Eagles plantation and the associated mill facilities on Jackeys Creek were acquired in two separate transactions by Brunswick County physician and planter Sterling B. Everitt. In the first transaction on January 1, "two hundred and ten acres of tide Swamp [on] Eagles Island beginning at the mouth of Eagles cut" was bought for $2,000 from Maurice Moore, son of the late Judge Alfred Moore. In the second transaction two months later, Everitt paid

$1,500 to John H. Winder for "a tract or parcel of land covered by water known by the name of Eagles Mill Pond and one half acre of land attached to and belonging to the same . . . with the dam and appertenences . . . (Brunswick County Deeds, Book L, 380-381). The Forks plantation, however, remained in the Eagles family until 1853, at which time John Winder and Caroline Ann Eagles Winder, his wife, conveyed it to Thomas C. McIlhenny for $45,500 in three separate legal papers, which included The Forks, the remaining rice lands on Eagles Island, and fifty-three slaves (Reaves 1984:26; Angley 1989:5; Schaw 1934:148; Hall 1980:22).

In 1880, after a quarter-century of ownership, Thomas C. McIlhenny offered The Forks, and his other plantation, Asperne, for sale. The following advertisement placed by McIlhenny describes the existing Forks plantation:

> The Forks tract can be sold with 100 acres of Rice land, or increased to about 200 acres with about 400 to clear . . . and about 3,000 acres of upland well-timbered. . . . On this tract is a very valuable Mill Pond, covering 1,000 acres of rich alluvial land equal to any on the River, which can be taken in at small cost, either for Rice or corn, or kept as an unfailing water power. Also a large quantity of black Cypress timber for mill purposes, shingles or railroad cross ties. . . .
>
> The improvements are a good Dwelling House containing twelve rooms, with all necessary out buildings; Overseer's House, with five rooms; large Mill House, good frame houses sufficient to accommodate 60 to 75 laborers, and large commodious, Stables etc. (Wilmington Star, March 30, 1880).

The Forks plantation probably continued to be used for rice cultivation until the early twentieth century, but cartographic evidence indicates that the mill on Jackeys Creek passed out of operation between 1880 and 1901. By 1932 the plantation house and other structures just south of the creek apparently no longer stood (Angley 1989:13-14).

Gander Hall

Gander Hall is one of the few plantations known by name to exist on the east side of the Cape Fear River below Wilmington. Ronald McDugall may have been the first owner of the 300-acre plantation, as he advertised for the sale of Gander Hall in October 1799. His notice placed in the local newspaper provides the earilest description of the plantation:

> For sale that valuable plantation, containing 300 acres of Land, lying on the east side of Cape Fear river, opposite Brunswick, and adjoining the Plantation of Peter Maxwell, Esq. The situation is as healthy as any on the Northwest River, on which is a very convenient Dwelling-House, a

> Well of good water, a valuable Fishery, etc. There are about 200 acres of cleared land which will answer the cultivation of rice and about 10 acres under good fence. There is also an excellent range for cattle and hogs . . . (Wilmington Gazette, October 10, 1799).

By 1830 Capt. James McIlhenny owned the plantation; McIlhenny, it is said, was the victim of a well-known joke that provided the name of the plantation. The captain was interested in taking advantage of the extraordinary trade demand for goose feathers at the time and ordered from a great distance and at a high price a large quantity of geese for breeding purposes. After waiting an almost intolerable time for the laying season to begin, he consulted an expert on geese and was informed, to his amazement, that he had purchased only ganders. Thus the name of the plantation was established. During the Civil War the landing at Gander Hall served as a transfer point for Confederate troops to be loaded on board steamers (Reaves 1982:4; Hall 1975:217; Sprunt 1896:49-50; Watters 1961:23; ORA, Vol. XLVI, pt. ii, pg. 1058).

In 1883 plans were under way for the closing of Corncake Inlet, which opened into Buzzards Bay south of the former New Inlet. The government awarded a contract to "Messrs. Ross & Lara . . . for supplying stone, brush and other necessary material" for filling up the inlet. Ross and Lara obtained the stone used for the project from a coquina quarry known as "Keystone Quarry" located at Gander Hall. A small tram railroad was constructed from the quarry to the river, a distance of 1½ miles, to haul the stone to the river's edge. Under the direction of assistant engineer Henry Bacon, a wharf 1,100 feet in length was built at the western end of the railroad track. There waiting scows were loaded at the wharf and pulled by the contracted steam tug *Harold* to the site of the dam under construction at the inlet. Near the quarry a number of wooden shanties were built to house the large number of men needed to dig the sedimentary rock. In February 1884 Ross and Lara advertised for "100 Good Quarry Hand." Their contract called for the removal of 9,000 tons of rock from the quarry (Wilmington Star, October 4, 16, 21, November 15, December 4, 22, 1883, February 3, 1884; Reaves 1982:4).

During the 1880s and 1890s Gander Hall was the site of religious camp meetings held by the black Methodists of Wilmington and the surrounding area. Their annual camp meeting was held near the wharf. For the 1890 meeting, the steamer *Sylvan Grove* made trips three times a day to what was then called "Harper's Pier" (Doctor Point) for the accommodation of persons wishing to visit the black camp meeting in progress at Gander Hall. Thousands of men, women, and children gathered at the campground at Gander Hall in 1894 for one of the largest meetings ever held. Two steamboats, the *Clarence* and the *Wilmington* were needed to transport the religious adventurers from Wilmington to Gander Hall. The vessels "had all they could do to handle the multitudes" (Wilmington Star, December 22, 1883, May 31, June 1, 1890, June 9, 1891, June 12, 1894; Reaves 1982:4).

Gander Hall fell into disuse before the end of the century and eventually went to ruin. By 1896 all that marked the location of the old plantation was a "fine grove of old oaks" near the New Hanover Transit Company landing (Sprunt 1896:n.p.).

Glastonbury Plantation (Brunswick River)

On Thursday, March 12, 1869, at 11 a.m., the "valuable and desirable Rice Plantation, well known as 'Glastonbury' situated in Brunswick County, on Brunswick River, 4 miles from this city" was sold at auction to Captain A. W. Rieger. The plantation was comprised of about 760 acres on the west side of the river just north of Buchoi plantation, owned by Frederick J. Lord, and about 220 acres of fine rice lands located on Eagles Island. The balance of the plantation was described as being "superior Upland, suitable for Cotton, Corn, &c." A six-room frame dwelling, with kitchen, a barn, and quarters for fifty hands were built on the plantation. Glastonbury was bought by Captain Rieger for $3,900 (Wilmington Star, February 19, and March 12, 1869).

Governor's Point Plantation

Located on what presently is Snows Point was the first and southernmost estate on the west side of the Cape Fear River during the colonial period. Historically it was known as Governor's Point because royal governor George Burrington purchased the property from the first grantee, John Porter. John Porter came from the Albemarle region to the Cape Fear in 1723 and died at Rocky Point in 1734. George Burrington became the first royal governor in 1724 and established his plantation just above the mouth of present-day Walden Creek about 1725, a year before the new town of Brunswick was laid out. After that date the Moseley map (1733) shows Burrington's residence, while Burringtons Point (Governor's Point) is indicated on the Wimble (1738) and Hyrne (1749) maps. Walden Creek was also previously known as Governors (Burringtons) Creek. In the late 1750s or early 1760s Governor's Point plantation was sold to Robert Snow, for whom the point was later named (Angley 1983:6-7; Waddell 1989:39; Payne and Brown 1983:20; Sprunt 1992:57).

Greenfield Plantation

The vicinity of Wilmington's Greenfield Lake and Gardens, located just south of the city, was once a rice plantation. The original grant of 1,000 acres was issued to William Smith on September 13, 1735 by Governor Gabriel Johnston. The property subsequently passed from Smith to Robert Halton and to Dr. Samuel Green, a young surgeon, in 1753. Beside the large "mill pond" or lake on Dr. Green's plantation, he built a sawmill. The location of his sawmill is noted on the Collet map of 1770 and the Mouzon map of 1775. Upon the death of Dr. Green in February 1771, the property was willed to his wife for life and in trust to his young son Samuel. Ownership of the plantation remained with Dr. Green's heirs until December 20, 1834, when Governor Edward Dudley purchased the land. On January 8, 1850, Dudley sold Greenfields to Thomas McIlhenny, who retained the property for a number of years (New Hanover

County Deeds, Book H-92; V-239; HH-70; Wilmington Star, July 4, 1882; Hall 1980:414-415). A brief description of the plantation appeared in a local newspaper on May 26, 1857, when Thomas McIlhenny attempted the sale of his property:

> The plantation known as Greenfield, situated 2½ miles below the town of Wilmington, containing about 170 to 180 acres in rice land and 300 acres in upland. The improvements consist of a dwelling house with necessary outhouses, two barns capable of holding about 15,000 bushels of rice, and cabins sufficient to accommodate 35 to 40 negroes, all of which are nearly new and in pretty good condition. Belonging to the plantation is a fine mill pond, affording an abundance of water for the working of two grain mills which are erected and now in successful operation (Wilmington Star, May 26, 1857).

The Greenfield plantation remained in the McIlhenny family until 1872 and was noted for several years after as McIlhenny's mill or mill pond. The "old mill house" was removed in October 1909, but another house, which contained the latest and most modern machinery for a grist mill, was built (Wilmington Star, October 19, 1909; Hall 1980:415). In September 1920 the Greenfields property was sold to the city of Wilmington to be developed into an amusement park. The final payment for 158 acres, including the mill and dancing pavilion, was made by the city five years later. Much of the original plantation had been divided and sold off as tracts during the late nineteenth and early twentieth centuries (New Hanover County Deeds, Book GGG-152; Wilmington Star, December 14, 1883).

Hallett Plantation (Eagles Island)

During the two decades following the Civil War, B. F. Hallett owned a plantation on Eagles Island 1½ miles south of the Market Street dock. The rice plantation contained 60 acres and was said to be located "under the bank and ditch, with good trunks." A writer for a Wilmington newspaper commented in August 1876 that it was unusual to see fully matured rice at Hallett's plantation so early in the season. In late December 1884 Hallett placed his plantation up for rent (Wilmington Star, August 24, 1876; December 24, 1884).

Haulover Plantation

Before a storm opened New Inlet in 1761, mariners wishing to sail between the Atlantic Ocean and the Cape Fear River had to navigate close to the treacherous Frying Pan shoals near the mouth of the river. For those individuals using small craft, the dangerous and lengthy route could be avoided by transporting the vessel overland across the peninsula near its narrowest point. The area in which vessels were carried overland most often occurred near Sugar Loaf at The Haulover. There was both an upper and lower Haulover across the peninsula. In the early eighteenth century Maurice Moore was granted ownership of nearly 3,000 acres at The Haulover. In 1736

Moore transferred 2,640 acres of his property to Colonel Thomas Merrick of Wilmington for £500 and the remainder to John Porter. To further facilitate travel between the ocean and the interior of Brunswick County, the county court ordered that a ferry be kept from the west side of the river at the place known as The Haulover. Cornelius Harnett Sr. purchased in June 1726 from Col. Maurice Moore two lots within the town of Brunswick on the lower Cape Fear River, where he built two houses. It was from this location that Harnett Sr. operated a ferry across the river to the haulover near Sugar Loaf. At least one dwelling's remains could still be seen in the late 1800s at the ferry location (New Hanover County Deeds, Book E-313; AB-212; Colonial Records 2:686-698; McKoy 1973:30, 119, 155).

In 1737 Thomas Merrick conveyed his newly acquired 2,640 acres at The Haulover to Richard Moorescroft of Barbadoes for slightly more than £492. The property involved in the transaction included everything above Landgrave Smith's land northward for about 12 miles. While Merrick was probably a longtime resident at the plantation, there is no indication that Moorescroft ever resided at The Haulover. Perhaps Moorescroft simply held the land in trust for Merrick, as the property would be owned by Merrick's heirs a few years later (New Hanover County Deeds, Book AB-37; McKoy 1973:30, 119, 155).

Upon the death of Thomas Merrick The Haulover plantation was likely willed to his five children, or at least to Thomas Jr., his eldest son. Thomas Merrick Jr. married and had two daughters, Sarah and Dorothy, to whom he left his property on Federal Point. Dorothy married but died without children, and as she made no will, her portion of the plantation reverted to her sister, Sarah, who married Samuel Ashe the Younger. In 1788 Samuel and Sarah Ashe sold to Archibald MacLaine 500 acres of "Lands commonly known by the name of the Haulover between the Cape Fear River Westerly-the Sea Easterly and the New Inlet Southwardly-part of the estate of Thomas Merrick. . . ." On June 25, 1792, the couple sold additional land to William Moseley. The mouth of Hickory Ridge creek divided the property of Moseley and MacLaine. William Moseley sold to MacLaine his 500 acres, and over the next few years he also sold 920 acres to three others: Simon Sellars, Joseph Newton, and Peter Maxwell. It is interesting to note that in the deed from Mosely to Maxwell in 1794, the Sand Hill, or Sugar Loaf, was used as one of the landmarks. By 1801 George Hooper and his wife, Catherine, sold to Simon Sellars a 500-acre portion of The Haulover plantation "except for six half acre lots at the point near the Inlet where the houses now stand" (McKoy 1973:30, 119, 155; New Hanover County Deeds, Book H-691; K-313; M-97).

Hawfield Plantation

On September 15, 1869, the Wilmington auctioneers Cronly & Morris attempted to sell the "Valuable Rice Plantation" known as Hawfield, located 12 miles below the city on the east shore. Hawfield was comprised of 700 acres, of which 110 acres were rice land under bank and ditch. Apparently the plantation did not sell, or the last buyer was unable to meet the terms, but Hawfield was again sold at auction just six months later, on March 23, 1870. Nothing else is known about the plantation or the owners (Wilmington Star, September 7, 1869, February 20, 1870).

Hilton or Maynard Plantation (Northeast River)

Above Wilmington on the south side of Smith's Creek, near the river, John Gardner Squires was granted 300 acres in 1728. Squires kept the property for approximately two years before he sold it in 1730 to John Maultsby (New Hanover County Deeds, Book YY-142; AB-161; McKoy 1973:32). The land once again changed owners when Maultsby apparently transferred ownership of the plantation to William Moore prior to 1753. Probably during Moore's ownership, the plantation was significantly improved. A "Mansion house" was built on the plantation and a grove of live oaks was located just south of the mouth of Smith's Creek. The dwelling faced the river and was constructed of brick with a gambrel roof and dormer windows on the second story. A large porch encircled three sides of the mansion. The mansion was standing, although in a damaged condition, as late as 1892 (Lee 1980:143; Waddell 1989:49). Following William Moore's death, the plantation, then known as Maynard, passed into the hands of the noted Wilmington individuals most closely associated with the plantation, Cornelius Harnett Jr. and his wife, Mary:

> 150 acres more or less were sold and conveyed to the said Cornelius Harnett Jr. by William Moore Esq. dec'd by Deed bearing date of 30th day of may 1753, and the remaining 144 acres was by Deed bearing date the 9th of November 1756 sold to the said Cornelius Harnett by the "Exors" of the said William Moore together with the capital Mansion or dwelling house and all other Edifices, Erections buildings and improvements on the said Land and all ways, water courses, woods, passages, paths etc., to the said estate or plantation (New Hanover County Deeds, Book H-427).

In 1750 Gov. Gabriel Johnston appointed Harnett Jr. justice of the peace for New Hanover County, and from 1750 to 1771 Cornelius Harnett Jr. served as a commissioner of Wilmington. In his will dated April 28, 1781, Harnett Jr. left Maynard to his wife, Mary, also making her executrix and Samuel Ashe and William Hill executors of his estate (Sprunt 1992:121-122). Three years from the date of the will, on May 31, 1784, Mary sold to John Hill, brother of William, the 272-acre plantation for a consideration of 3,750 Spanish milled dollars. Four years later John Hill sold the plantation to his brother William, who stated in his will that he renamed the plantation "Hilton" after his family. Hill's deliberate omission of one "L" from the spelling of the name has led several individuals to believe incorrectly that the plantation was named for the early explorer of the Cape Fear River, Captain William Hilton (Lee 1980:141; Waddell 1989:49; New Hanover County Deeds, Book H-427; McKoy 1973:32).

By 1853 Hilton was in the possession of James F. McRee, who later served as a surgeon in the Confederate States Army. In New Hanover County, on January 21, 1853, a deed that showed that McRee had conveyed a parcel of land from the plantation to Oscar G. Parsley was registered. On this piece of land, Parsley established a steam sawmill, known as the Hilton Mills Property. This 26-lot property was within the corporate limits and had a waterfront of 1,693 feet, with 413 feet of wharf and the remainder of a timber pen. In addition to his mills at Hilton, Parsley built two houses. On November 22, 1867, James McRee sold another section of the Hilton plantation, by then partially within the city limits of Wilmington, to George W. Grafflin for $20,000 in gold coin. A most unusual adventure began at Hilton by the summer of 1870. A Mr. C. Hussell announced that he had opened a beer garden on the old estate. In the pleasant atmosphere of the "beautiful grounds" and near the "old house" that was still in good standing, Hussell placed benches and built a dance floor. The steamer *Little Sam* began making daily trips between Market Street dock and Hilton (Lee 1980:142-145; New Hanover County Deeds, Book WW-275, 418; Wilmington Journal, February 23, 1866, July 26, 31, 1870; Wilmington Star, November 5, 1876).

The remainder of the Hilton plantation was divided into several town blocks and lots. In January 1892 a large section of the old plantation had been purchased by the Peregoy Lumber Company for $8,000. Just after the purchase of the tract called Hilton, Mr. Peregoy advised the city that he planned to tear down the Hilton mansion. He declared that if the city would exchange the old brick in the structure for new, he would move the mansion to a place where it could be preserved. The city failed to accept Peregoy's offer, and the mansion was demolished. After the turn of the century a park was established at Hilton (Lee 1980:142-145; Wilmington Star, April 10, 1906).

Howe's Point Plantation

On the west side of the Cape Fear River at the point of land just north of Governor's Point was a colonial plantation known as "Howe Place." The plantation was closely associated with Gen. Robert Howe, who gained fame during the American Revolution as a patriot and soldier. Robert's grandfather, Jobe Howe Sr., came over to America with the colony planted at Old Town Creek by Sir John Yeamans in the year 1665. His father, Job Howe Jr., a well-educated and wealthy planter, came to the Cape Fear region about the year 1707 with Colonel Maurice Moore, to whom he was related and who assumed the charge of the lands abandoned in 1690 by Sir John Yeaman (Bellamy 1882:1; New Hanover County Wills, Book AB-70).

Robert Howe was born in the precinct of Clarendon, in the present limits of Brunswick County, about the year 1730. Being a lineal descendant of Sir John Yeamans, he had the advantage of being associated with the best families in both North and South Carolina. He was also the grandson of Mary Moore, the daughter of James Moore, who was governor of the two Carolinas in 1670 (Bellamy 1882:1). Howe was reported also to have lived at Kendall plantation a brief time. In 1763 Robert Howe was living at his father's plantation on Old Town Creek, but shortly before the American Revolution, he built a house on the Cape Fear River behind the ruins of an old fort. Howe's residence was a large three-story frame building on a stone or brick foundation located on what was known as Howe's Point but presently is referred to as Sunny Point. In retaliation for defeat of Lord Dunmore, 900 troops under command of British Generals Cornwallis and Clinton burned Gen. Robert Howe's plantation on May 12, 1776. The old fort, behind which Howe's house supposedly stood, was thought to have been constructed for defense against pirates that frequented the river in the early 1700s. Since Stede Bonnet was the only known pirate to enter the Cape Fear river, the fortification more likely represented a makeshift structure thrown up in the 1740s to guard against the Spanish threat. It had long been abandoned by the time of the American Revolution (Bellamy 1882:1; Angley 1983:14-15; Bennett 1858;n.p.; Virginia Gazette, June 29 1776; Wilmington Star-News, July 2, 1978; Sprunt 1896:80-82; Waddell 1989:40-41).

Robert Howe returned to his plantation after the Revolution and tried to continue as a planter. It is not known if he rebuilt his dwelling destroyed by the British, but Howe may have remained at the plantation until the summer of 1785. In that year he was elected to the legislature, and he took his seat at New Bern in November. Gen. Robert Howe died in December 1786 at the age of fifty-six. The history of the Howe Point plantation is unknown for the next fifty-six years. In 1842 the "Howe Place," described as handsomely situated on the river and well wooded, was advertised for sale. The plantation was once again offered for sale in 1850. At that time, the Howe Place consisted of 273 acres. The land was eventually transferred in 1955 to the Department of the Army's Military Ocean Terminal, Sunny Point (MOTSU), which retains ownership (Wilmington Chronicle, January 5, 1842, November 27, 1850; Bellamy 1882:1).

Kendal Plantation

On the west side of the Cape Fear River, just below present day Liliput Creek, once stood the plantation known as Kendal. The plantation was originally granted to Colonel Maurice Moore in 1725, who deeded it to his brother, "King" Roger Moore, in 1726. By 1734 an "exceedingly pleasantly situated" brick house had been built on the plantation. On March 7, 1747, Roger Moore bequeathed Kendal to his son, George Moore. George Moore in turn sold Kendal to John Davis Jr. in 1765 (Sprunt 1992:58; Waddell 1989:42-43; New Hanover County Deeds, Book E-242; LCFHS Bulletin 1969:12:2).

During the time of the American Revolution, Kendal may have been owned by General Robert Howe, who was reported to have lived there for a period. The plantation was then owned by James Smith, a brother of Gov. Benjamin Smith. Unfortunately, no description of the plantation or main house is known. One of the subsequent owners was Griffith John McRee, a patriot of the Revolution (ARC, 1984; Angley 1983:14; Lee 1965:272; Sprunt 1992:58; Waddell 1989:42-43).

In the year preceding the Civil War, Kendal was shown as being 5,591 acres in size. It was owned and cultivated by Owen Holmes, who produced with seventy-three slave workers that year 254,000 pounds of rice. Kendal apparently sustained some damage and declined during the war years, as did so many of the other plantations on the lower Cape Fear River. A few months after the conflict, the plantation was available for rent until January 1867. It was described as being 3,500 acres of land, with only 150 acres of "best rice land upon the river, all under good bank and ditch." (Wilmington Daily Journal, February 6, 1866). Kendal is next accounted for in 1875, when it was auctioned for sale (Wilmington Star, February 7, 1875). When the rice plantation was again advertised for sale in 1879, a detailed description of the property, dwelling house, wharf, livestock, and holdings were mentioned. The following notice was printed in early January 1879:

> For Sale or Rent-Kendal Plantation, situated on Cape Fear river, 12 miles below Wilmington, with working implements, stock, &c., consisting of 1 Clipper Mower, 1 Horse Rake, 1 Hay Press, 2 Mules, 25 Head Cattle, 30 Sheep, 1 Buggy, 1 Wagon and Harness, 1 Flat, Plows, &c. The Plantation consists of 150 acres Rice Land -- 75 acres being banked and drained, 300 acres cleared Upland, fenced; 2,500 acres well-timbered Woodland, in which 5 to 10 crops of boxes can be cut; lightwood plentiful, with water facilities for flatting wood to wharf, (wharf belonging to Plantation) where wood can be sold readily at $3 per cord. There is a good Dwelling House, with six rooms, on Plantation, also an Office, Crib, Stables, &c. (Wilmington Star, January 5, 1879).

It is likely that Kendal came into the possession of Fred Kidder about this time. Kidder is known to have made a few improvements at the plantation during his lengthy period of ownership. By 1882 Kidder had built a store at Kendal, and in 1891 he began construction on a new dock just below the existing one. Two years later the new dock was destroyed by a violent storm. Fred Kidder continued to cultivate rice on his plantation until after the turn of the century. In 1903 Kidder began growing fruit and vegetables in Florida. He announced that he would continue his cultivation of rice at Kendal, but production would be reduced as he planned to divide his time between North Carolina and Florida. In 1919 well-known local historian James Sprunt purchased Kendal and the adjoining Lilliput plantation (Wilmington Star, June 28, 1882, September 4, 1891, October 15, 1893; Wilmington Evening Dispatch, October 16, 1903; Sprunt 1958: 13).

Lilliput Plantation

One of several land grants made during the proprietary administration of Governor George Burrington went to Eleazer Allen on November 6, 1725. The land granted Allen was on the west side of the Cape Fear River immediately north of present-day Liliput Creek, now spelled with only one L. At the time of the grant, Allen was active in South Carolina politics. Eleazer Allen, a Harvard graduate, married Sarah Rhett, the oldest daughter of Colonel William Rhett of South Carolina, about 1722. Another of Rhett's daughters married Roger Moore, and it was through that family connection that Allen became interested in the lower Cape Fear region. In 1730 Governor Burrington recommended Allen for the North Carolina council. He was appointed to that position but apparently did not assume the duties until November 22, 1735. Allen did not build and permanently settle his family on the Cape Fear plantation until 1734, a year before his appointment. He named his plantation Lilliput for the imaginary country depicted in Jonathan Swift's Gulliver's Travels, a popular book of the time published in 1727. The Allen mansion was said to have been beautifully built of brick. It is shown on the Moseley map (1733) under the name "E. Allen," on the Collet map (1770) as "Liliput to the G," and on the Price map (1808) as "Lilliput." Eleazer Allen served as receiver general of the province of North Carolina from 1735 to 1748. Prior to his death on January 7, 1749, and burial at Lilliput, Allen had been named chief justice of North Carolina (Howell 1984:6-7; Sprunt 1896:55-57; Sprunt 1992:55-57).

Following the death of Eleazer's wife, Sarah Allen, in 1761, Lilliput plantation passed to the ownership of John Davis the younger on April 18, 1765. For a time, possibly the period between 1761 and 1765, the plantation may have been owned by Sir Thomas Frankland. Sir Thomas was a grandson of Frances, a daughter of Oliver Cromwell. Shortly after John Davis acquired Lilliput, the county deeds tend to indicate that he sold off portions of the plantation. In September 1765 George Moore obtained "a plantation called Lilliput," and in October Davis supposedly sold part of the plantation to Gov. William Tryon. By 1789 Lilliput was in possession of the well-known McRee family, owners of the adjacent plantation of Kendal (Sprunt 1896:55-57; Howell 1984:8; Waddell 1989:44; Powell 1968:282).

George McKenzie's will of May 18, 1811 indicated that he was then the owner of Lilliput. Five years later the plantation was for sale. In the notice of the sale (early 1816), several facts about Lilliput are mentioned:

> For Sale - That valuable plantation called Lilliput, late the residence of G. McKensie, Esq. deceased. It contains 640 acres of land, about one hundred and twenty of which are Tide swamp and Marsh, admirably adapted for Rice or Cotton, about sixty acres are under a high state of cultivation for Rice. On the plantation is a good two story dwelling House, with out buildings, Houses for Negroes &c. Its situation is undoubtedly the handsomest on Cape Fear River and the Place is beautifully ornamented with live Oak groves of the natural growth. Its distance from Wilmington is about twelve miles, and from Brunswick three (Wilmington Gazette, January 13, 1816).

The property did not sell immediately, for it was still advertised as late as August 1816. In 1837 Dr. John Hampton Hill purchased Lilliput, "where he planted rice until the close of the war." Dr. John Hill was the brother of Dr. Frederick Hill, who owned nearby Orton plantation in the first half of the 1800s. After the war, Dr. Hill sold his plantation and his outfits and retired from the active business of rice farming. Perhaps one factor that led Hill to end his efforts at rice cultivation was an infestation of his rice fields by rats in the the spring of 1868. In two nights' time, Dr. Hill poisoned "three thousand of them, and in two weeks, the enormous number of over ten thousand" (Wilmington Star, May 5, 1868; Wilmington Messenger, March 3, 1893; Hall 1980:21; Howell 1984:8).

Dr. Hill appears to have sold Lilliput within the next few years to another physician and likely friend, Dr. Walter G. Curtis of Smithville. Dr. Curtis served as the quarantine medical officer for the lower Cape Fear. The house of Owen D. Holmes, the supervisor at Lilliput, was reported destroyed by fire in November 1874. Damage was heavy, and there was no insurance on the dwelling (Wilmington Star, November 17, 1874). Within months of the fire Dr. Curtis offered his plantation for sale. The notice of the sale of Lilliput and adjoining Kendal plantation appeared three months later in the local newspaper (Wilmington Star, February 7, 1875). Fred Kidder subsequently purchased both Lilliput and Kendal and continued to cultivate rice on his plantations until after the turn of the century. In 1919 James Sprunt purchased Mr. Kidder's estate. The Lilliput property is currently part of the Orton Plantation and Gardens complex (Wilmington Star, October 15, 1893; Howell 1984;9; Sprunt 1958:13).

Mallory Plantation

Mallory Creek on the west side of the Cape Fear River separated Mallory plantation on the north side of the stream and Clarendon plantation to the south. Mallory plantation was owned by William Hankins, whose ancestors were planters in the Carolinas as early as 1711. The plantation as described in 1834 contained 400 acres of rice land and 1,600 acres of pine, oak, and cypress trees. A large, two-story dwelling located in a grove of oaks contained eight large rooms with a fireplace in each. There was also a kitchen, barn, slave quarters, and all the necessary outhouses. When advertised for sale on January 1, 1888, Mallory plantation was comprised of 2,100 acres, with 75 acres under rice bank, 40 acres in cultivation, and the remainder in timber. A canal for the loading of flats and boats ran from the river into the plantation, approximately one mile. Although a "large rice barn and outbuildings" were referred to in the newspaper advertisement, no mention of a residence was indicated. At a mortgagee's sale held in June 1903, William M. Hankins and his wife relinquished ownership of the plantation (Hall 1980:22; Wilmington Messenger, January 1, 1888; Wilmington Evening Dispatch, June 5, 1903).

MacKnight Plantation

The MacKnight plantation may have been another of the land grants made by Governor Burrington about 1725 during his proprietary administration. A 640-acre tract of land located "half a mile below a Plot of Land laid out for the Town Called Brunswick" was granted to Patrick MacKnight. In 1744 one-half of the tract of 640 acres was acquired by a prominent figure in colonial North Carolina. That year Edward Moseley, surveyor general and lawyer, purchased part of the plantation from Anna MacKnight, "widow of Patrick MacKnight, she now of the City of New York doing her business through Roger Moore." The Moseley map of 1733 indicates the general location of the MacKnight plantation. In his 1745 will, Moseley referred to the "plantation below Brunswick commonly called Mac Knight's. . . ." Edward Moseley died in 1749, and the plantation may have been willed to his heirs or sold. As late as 1807 the shallows along the upper shoreline of the present Sunny Point Terminal area was referred to as "McKnight's Shoal" (Angley 1983:15-16; McKoy 1973:8; Graves 1981:12).

Mount Tirzah or Terza Plantation (Spring Garden Plantation)

During the 1740s Thomas Clark lived at a plantation known as Spring Garden on the east bank of the Cape Fear below Wilmington. Thomas Clark, the father of Revolutionary War hero General Thomas Clark Jr., served as a justice of the peace (1740), commissioner of highways (1740), collector of the Port of Brunswick (1741), and sheriff of New Hanover County (1741). He was married to Barbara Murray, sister of James Murray, and resided at the plantation until his death in 1746. No additional information on this plantation is known. A Spring Garden plantation has also been referred to north of Town Creek. On June 4, 1829, that same tract of land was sold by John Waddell to Gov. Edward B. Dudley. The plantation, now known as Mount Tirzah, consisted of approximately 150 acres on the east bank of the Cape Fear River opposite Cat Island and a short distance south of the Dram Tree. Tirzah apparently is a Hebrew name for a tree similar to the cypress. In May 1835 the citizens of the town deemed it necessary to establish and build a hospital for the benefit of the seamen of Wilmington. Funds were raised, and the Mount Tirzah property and buildings were purchased from Gov. Edward B. Dudley for $1,000. On March 3, 1836, Dudley conveyed to the newly formed Wilmington Marine Hospital Association the tract of land and the improvements thereon, excepting five negro houses "which he will remove" (Sprunt 1896:36-37; Hall 1980:138; Wilmington Messenger, September 9, 1888; Lennon & Kellam 1973:4).

The main house on the plantation, a two-story dwelling 60 feet by 27 feet, was converted into a hospital and successfully operated until 1855, when a lack of funding for repair to the aging facility forced the association to transfer the property and assets to the two-year-old Seaman's Friend Society. During that time the tract of land became known as Hospital Point. The society hospital was eventually moved to within the city limits near the southwestern section and maintained by the United States government. Following the Civil War, the Seaman's Friend Society maintained at Hospital Point a "pest house" for infected sailors. As late as 1896 the city government still maintained an isolation and infectious disease treatment facility at Hospital Point. The pest house at Mount Tirzah was consumed by fire in February 1898. It had been vacant for several months and was to have been destroyed before the fire occurred (Sprunt 1896:36-37; Hall 1980:138; Wilmington Messenger, September 9, 1888, February 23, 1898).

Negro Head Point or Point Peter Plantation

Between the forks of the Northwest and Northeast branches of the Cape Fear River opposite Wilmington was the Mount Misery tract. A plantation consisting of 5,500 acres at that location was granted to Roger Moore on October 28, 1726. Roger Moore's will, dated June 30, 1750, and proved the following year, divided the Mount Misery tract between Moore's sons, George and William. The land between the two rivers became known as Negro Head Point. George Moore owned the plantation half on the North

West branch of the Cape Fear River, while his brother William owned the half lying along the North East branch. William Moore's half of the plantation eventually descended to his son, Roger Moore (New Hanover County Deeds, Book C-288; Waddell 1989:48-49).

By 1777 Roger Moore was in possession of his part of the plantation, and on June 24, of that year sold to Peter Mallett and Arthur Magill for £4,000 his "tract of land called Negro Head Point containing about 3,000 acres . . . with houses and other appurtenances...excepting 200 acres of Low Ground and 200 acres of High Ground formerly sold by said Roger Moore to James Walker, but now the property of William Hill and is to be divided off to said Hill in and about the plantation whereon he now lives. . . ." Arthur Magill then sold his portion of the plantation to Peter Mallett in 1779. An 1787 resurvey determined that the property excluded for the use of William Hill, which he called Force-Put Plantation, was larger in actual acreage than intended. For the purpose of "preventing any further Disputes, Differences & Litigations," Mallett sold and quit claimed additional land to Margaret Hill, wife of the deceased William (New Hanover County Deeds, Book H-51, H-234 and H-466).

The half of the plantation on the North West branch of the Cape Fear River originally belonging to George Moore was willed to Peter Mallett on January 1, 1795. With the extensive landholdings then in possession of Peter Mallett, Negro Head Point also began to be known as Point Peter (New Hanover County Deeds, Book L-822).

In 1842 the property of Peter Mallet was finally advertised for sale. In a Wilmington newspaper dated January 5, 1842, the following lengthy notice of the extensively developed plantation appeared:

> Real Estate for Sale - The valuable Rice Plantation known by the name of Point Peter, situated a half mile above the Town of Wilmington, at the junction of the North East and North West branches of the Cape Fear river. The plantation contains in all 3,000 acres - extending nine miles up the North East river, affording a first rate range for cattle and hogs. Few places embrace so many advantages for the culture of Rice as this; situated between the two rivers, it possesses the advantages of draining into both, (the average width not exceeding half a mile) and contains no central field; it is also exempt in a great measure from storms and freshets; . . . The STACK-YARD is in the centre of the plantation proper, which comprises 200 acres of superior land under bank and ditch and in prime order; it has produced an average crop of seventy-five bushels per acre. The stack-yard contains 3 acres of high land, sufficient for all the purposes of harvesting; a dwelling house, brick kitchen, stable, cowhouses, cooper shed, and sick house, together with cow-lots and a fine garden. A canal nineteen feet wide has just been completed at a great labor and expence, leading direct from the barn to the North West river, which rendered the place in every respect complete. The negro

> quarters built of brick and in good order, are situated on another place of high land, within call of the house, but so far removed as to incur no risk of fire (Wilmington Chronicle, January 5, 1842).

During the period of the Civil War, limited information is known about the Point Peter plantation, but the property was again advertised for sale in 1877 by a W. F. Potter, proprietor. At that time it contained 400 acres of cultivated rice lands and 4,000 acres of swamp and woodland. In addition at the Point Peter plantation was a dwelling house, barn, outbuildings for fifty hands, and rice mills. One rice mill was thoroughly repaired and equipped with new machinery in 1887 by the new owners of Point Peter plantation, William Larkins and Andrew Flanner. In 1840 a Samuel Potter built the rice mill on Point Peter, and it was afterwards run by his son and grandson. Near the turn of the century, rice cultivation became unprofitable for most of the plantations along the river. The Point Peter plantation, a victim of that market decline, was eventually divided into smaller tracts of land and sold. One of the larger tracts was purchased by the Cape Fear & Yadkin Valley railroad (Wilmington Star, November 28, 1877; Wilmington Weekly Star, September 23, 1887, January 10, 1890; Wilmington Messenger, November 26, 1887, March 1, 22, 1896; June 24, 1905). The Point Peter steam sawmill was purchased at public auction on January 2, 1855 by Mr. B. Flanner for $11,000. By April 1856 the mill had not been worked for more than a year when it was destroyed by fire (Wilmington Daily Herald, January 2, 1855; Wilmington Tri-Weekly Commercial, April 24, 1856).

Nesses Creek or Fairfields Plantation

Two large tracts of land of 1,000 and 640 acres respectively, located on the east side of the Northeast Cape Fear River above Smith Creek, were granted in 1728 to Humphrey Johnston, who mortgaged them to Joseph Wragg of Charleston, S.C., in 1729. The North Carolina Council regranted the land to Wragg in 1737. Upon the death of Joseph Wragg in 1771 the land was willed to his wife, Judith Wragg, who sold 1,000 acres in 1759 to Thomas Wright. Thomas Wright gave the house and land where he lived at Nesses Creek and Wragg Creek plantation to his eldest son, Thomas Wright Jr., who maintained the land until he sold it in 1778 to his stepfather, Charles Jewkes, for £2300 (New Hanover County Deeds, Book E-121; G-200; I-172; New Hanover County Wills, C-434).

Charles Jewkes kept the "Nesses Creek plantation" until December 9, 1788, when he sold the property for £2800 to John Hill of Wilmington. The plantation contained at that time "1000 acres more or less." John Hill was the son of William Hill, who had moved from Boston to Old Brunswick Town. John served as a lieutenant during the American Revolution and was responsible for naming his plantation Fairfields. His wife, Elizabeth, was the daughter of Frederick Jones and Jane Swann. Elizabeth Hill died in 1809 at the age of forty-eight years. She was buried in a small brick-walled cemetery on the Fairfields plantation. Of the four graves present, only one gravestone, that of Elizabeth's, was erected. John Hill drafted his will on May 26, 1812. In a codicil later added to the will, Hill wrote: "My western lands or the warrents I am entitled to as an Officer of the Revolutionary Army I give to sons William and Frederick Jones Hill." It was to his son William that he left "all the lands below the present fields of Fairfields Plantation situated between Nesseys Creek and Wraggs Creek & bounded by the river." In his will, John Hill also mentions a "Chalk Landing" at the plantation. (New Hanover County Deeds, Book I-172; C-160).

During the antebellum period the sons of John Hill, along with his brother, Dr. Nathaniel Moore Hill, further divided and sold tracts of the original Fairfields plantation and adjoining property owned by the Hill family. A large section of the plantation purchased from the Hills by a William Wright was sold in 1873 to William F. Potter of Point Peter for $6,000. Potter died at his plantation on May 17, 1878, and Fairfields plantation was advertised several years later, in 1885, as being for rent. The plantation house built by John Hill no longer stands on the property. Current maps of the vicinity still show a "Ness Creek." (New Hanover County Deeds, Books Q-51; S-336; Wilmington Star, March 18, 1885; USGS 1970, Castle Hayne).

Old Town Plantation

Located 7 miles south of Wilmington at the mouth of Old Town Creek was Old Town plantation. The property was purchased in 1761 by Judge Maurice Moore from his brother, Gen. James Moore. In 1768 it was sold to John Ancrum, an early settler and a prominent man, who was a leading merchant and chairman of the safety committee. In 1808 a William Grave Berry died at his plantation called Old Town (Wilmington Gazette, November 15, 1808; Waddell 1989:47). Old Town plantation was advertised for sale in 1830 by Thomas Cowan. The plantation was then described as "lying in the point formed by Old Town Creek at its junction with the Cape Fear." It contained "1400 acres, 250 to 300 acres low land of superior quality, 135 acres under bank and ditch. . . ." Improvements on the property included "a comfortable dwelling house of brick, 20x30, story and a half, four comfortable rooms, a brick kitchen and overseer's house, good negro quarters, excellent well water, and two barns with 10,000 bushel capacity" (Wilmington Recorder, December 15, 1830). By 1838 Old Town plantation was still owned by Thomas Cowan, who maintained the land for a number of years. In 1838 the plantation consisted of 1,400 acres, with 400 acres of tide swamp and 160 acres banked and ditched under rice cultivation. The fenced uplands produced a yearly corn crop of 1,200 to 1,500 bushels, and the rice fields a yield of 8,000 to 10,000 bushels. A brick dwelling with other necessary houses and barns were maintained on the property. Thomas Cowan was forced to sell his Old Town plantation for taxes on January 1, 1870 (Hall 1980:22; Wilmington Star, December 3, 1869).

Orton Plantation

Orton plantation has been described by several of the Cape Fear historians as perhaps the finest remaining example of a colonial residence in North Carolina **(Figure 12)**. Orton plantation is situated on the west bank of the Cape Fear River about halfway between Wilmington and Southport. The plantation was granted in 1725 by the Lords Proprietors to Maurice Moore, son of Gov. James Moore of South Carolina, who had been sent several years earlier in 1711 with his brother, Col. James Moore Jr., to suppress the Tuscarora Indian uprising within the province. Maurice, along with two other brothers, Roger and Nathaniel, returned to the Cape Fear vicinity in 1726 with a group of settlers at the request of the last of the proprietory governors, George Burrington. There they established as a business venture Brunswick Town. Maurice choose to build his plantation, known as "The Vats," several miles up the northeast branch of the river and so quickly passed the Orton estate near Brunswick to his brother, Roger, a member of Gov. Gabriel Johnston's council. Roger named the 10,000-acre plantation Orton after the ancestral home of the Moores in England (Sprunt 1992:57-58; Moore 1968:13-14; Sprunt 1958:5; Waddell 1989:42).

Roger Moore built at Orton a modest dwelling situated a half-mile from the river on a high bluff. His original house was destroyed by Cree Indians, who in turn were defeated by Roger Moore at a battle on Sugar Loaf, the sand bluff directly across the river. Roger built his next home on his adjoining plantation called Kendal but by 1735 had moved his family back to a new mansion constructed at Orton. His new residence at Orton was constructed of imported brick pierced with gun holes to prevent any future attack by Indians, pirates, or Spanish raiders. The dwelling, completed in the Greek Revival style with elegant white pillars, was enlarged a few years later (Moore 1968:14; Sprunt 1896:61-66; Sprunt 1958:3; Sprunt 1992:58).

Orton plantation was among the largest and first to produce rice along the Cape Fear river. Because of his vast land and slave holdings, Roger Moore was referred to as "King" Roger. Upon his death in 1750, Moore left his Orton and Kendal estates and 250 slaves to his two sons, half brothers William and George. William Moore, the subsequent owner of Orton mansion, died just seven years later and passed Orton on to his wife, Mary, and son, Roger Moore the younger. By the time of the American Revolution, the Moore family had sold Orton to Richard Quince, a prominent Brunswick commissioner, judge, and merchant. During the Revolution, the British army, under command of General Cornwallis, sailed up the Cape Fear River and landed at Orton a raiding party that destroyed the rice mill. The plantation remained in the Quince family for a number of years. (Moore 1968:14-15; Sprunt 1958:7; Watters 1961:48; New Hanover County Deeds, Book D-134; Wilmington Messenger, March 28, 1893; Waddell 1989:42).

In 1796 Orton was sold by Richard Quince's heirs to Benjamin Smith, who had moved to Orton from Belvedere, his plantation near Wilmington. In addition to Orton, Benjamin Smith purchased the remains of Brunswick Town, which had been destroyed and abandoned during the war, and "Russellborough" once the home of Governors Dobbs and Tryon. These purchases greatly increased the size of Orton plantation. Benjamin Smith, who had served as an aide to General Washington during the American Revolution, was elected governor of the state in 1810. As governor he played a key role in obtaining a charter for a town at the mouth of the river, which was named

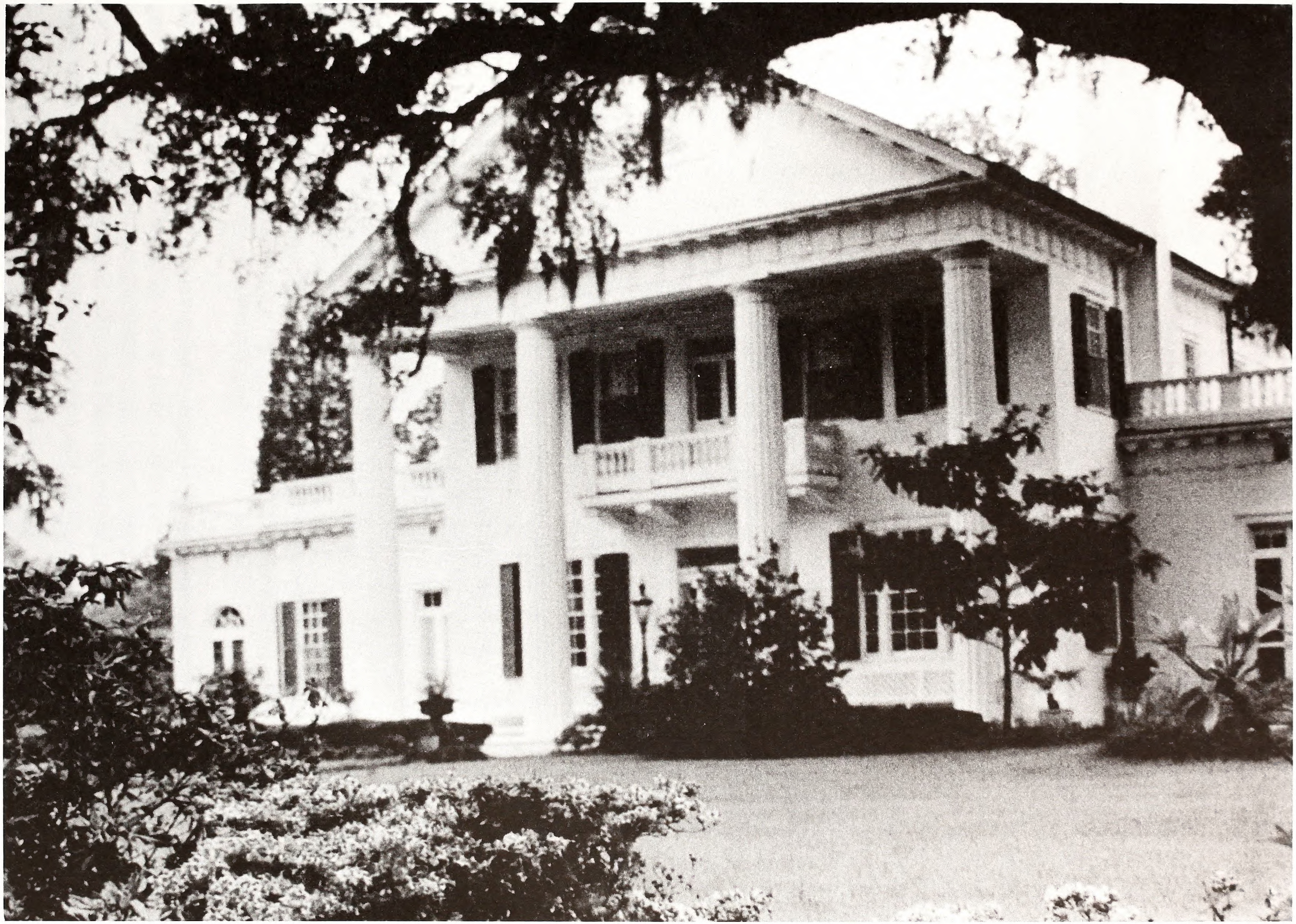

Figure 12. Orton Plantation.

Smithville (now Southport) in his honor. Although successful in politics, Smith failed in maintaining the plantation. He died a pauper in 1824 and was secretly buried at St. Philip's Church in the abandoned town of Brunswick. In order to pay off Smith's debts, Orton plantation was sold at auction (Sprunt 1958:8-9; Sprunt 1992:57; Wilmington Star-News, March 28, 1982). The announcement of the sale of Orton in 1824 described the condition of the plantation at that time:

> Will be sold at Public Auction, at the Court House, in the town of Wilmington, N.C., on the first day of December next-All that Plantation, lying in the county of Brunswick, State of North Carolina, known by the name of Orton, late residence of Gov. Benjamin Smith, containing 4975 acres, more or less. Of this tract between 400 and 500 acres is swamp land of a strong and fertile soil, which, it is believed will produce at least 100 lbs. of Cotton, or 4 tierces of Rice, to the acre, and is more capable of being well drained than any on the river, the fall of the tide being at least 4½ feet. Orton is a valuable and beautiful Plantation, situate on the Cape-Fear river, about 16 miles below Wilmington, which affords a good market for all kinds of produce, and about 14 miles above Smithville. . . . Included in the premises is a very superior and never failing Mill Stream, with an excellent Dam, wanting only flood gates-the Rice Machine, Mill and Gin having been recently destroyed by fire. The pond may be used at all times as a reservoir of water to flow the low lands, thus rendering Orton one of the most valuable Rice plantations in the country (Wilmington Chronicle, August 28, 1824).

In 1826 Orton was sold to Dr. Frederic J. Hill. During his ownership Dr. Hill enlarged the mansion by adding another story and attic and four large columns across the front. By early 1830 a good wharf had recently been constructed at Orton for use in the loading of supplies and especially lumber. A large amount of lumber was being produced and shipped from Orton. Dr. Hill sold Orton in 1854 to Thomas C. Miller, who had married his wife's niece. On the eve of the Civil War, Orton plantation, along with the attendant slaves, were sold for $100,000. When the purchase price could not be paid, the estate deteriorated and fell into disuse for a number of years. In defense of the river, the Confederates built breastworks along the southern boundary of the plantation and constructed Fort Anderson on the ruins of old Brunswick Town. Following the fall of Fort Fisher and Wilmington in 1865, the mansion house at Orton was used as a Union hospital (Wilmington Cape Fear Recorder, February 10, 1830; Sprunt 1958:10; Moore 1968:15; Wilmington Star-News, March 28, 1982; Sprunt 1896:61-66).

In the years that followed, several individuals tried to return Orton to its productive prewar status. In the absence of slave labor, each met with only limited success. When Orton was auctioned for sale in February, 1873, it contained at that time 9,026 acres. In 1877, when it was again offered for sale, it still contained about the same number of acres, with only 225 acres in producing rice and the remainder in forest. The two-story dwelling house of ten rooms and a brick basement, and all the outhouses, stables, barns, and farmhand houses, were included in the sale (Sprunt 1958:11; Wilmington Star, January 15, 1873, February 18, 1877; Watters 1961:48).

By 1893 Orton was under the ownership of Col. Kenneth M. Murchison, who was responsible for restoring the aging mansion at an estimated cost of $25,000. More than a hundred laborers were employed in making improvements and restoring the rice banks that were damaged by a severe storm later that year. Following the death of Colonel Murchison in 1904, Orton was purchased by a son-in-law, James Sprunt. In 1910 James Sprunt and his wife, Luola, the daughter of the previous owner, constructed two wings to the mansion. When Mrs. Sprunt died in 1916, her husband had Orton Chapel built in her honor. Dr. Sprunt followed his wife in death eight years later. Orton plantation was passed to their son, James Laurence Sprunt, who expanded the gardens, and subsequently to the grandsons upon the latter's death in 1973. Presently the gardens are open to the public, and the mansion remains privately owned (Sprunt 1896:61-66; Wilmington Star-News, March 28, 1982; Wilmington Star, October 15, 1893; Sprunt 1958: 13-15; Sprunt 1992:57).

Osawotomie Plantation

On October 30, 1902, a charter was issued to the Cape Fear Rice Company which owned and operated two plantations on Eagles Island and another plantation farther up the river. The two plantations on the island were the 145-acre Osawotomie and the 120-acre Bleak House. The third plantation was known as Lyrias. Rice banks were repaired and enlarged on Eagles Island with convict labor for that year's growing season (Wilmington Dispatch, November 29, 1902; Hall 1980:247).

Pleasant Oaks or The Oaks Plantation

A plantation known as Pleasant Oaks, located on the south side of Town Creek, was granted by the Lords Proprietors of Carolina on October 22, 1728, to Justina Moore, widow of John Moore, a brother of Col. Maurice, Nathaniel, and Roger Moore. Upon her death Justina heired the plantation to James Moore, her eldest son. In his will dated August 1, 1761, James Moore passed the ownership of Pleasant Oaks on to Mary Moore, the daughter of his brother George. Mary married Thomas Davis, and together they sold the plantation to Josias Alston in October 1772. When the plantation was advertised for sale in December 1788, it was described as being 1,000 acres in size (New Hanover County Deeds, Book F-275; McKoy 1973:41; Wilmington Centinel, December 10, 1788; Waddell 1989:44).

On a 1823 map of the Cape Fear River drawn by the U.S. Army Corps of Engineers, a plantation called The Oaks is shown south of Town Creek. Four structures are indicated at that location. Little else of the development of the plantation is known until the year preceding the Civil War. At that time the plantation was owned by John D. Taylor and described as 2,340 acres partially under rice cultivation. Rice harvest amounted to 145,800 pounds from Taylor's property in 1860. Ownership of the plantation had again changed hands by the end of the war. On October 19, 1865, the Oaks plantation, "late residence of C.B. Miller," was announced for sale at auction. In 1898 James Sprunt, the latest owner of the plantation, received from Col. John Taylor the original grant for the parcel of land "now known as The Oaks" (USACOE 1823; Wilmington Weekly Star, July 15, 1898).

In 1902 James Sprunt contracted with the Diamond Wrecking and Dredging Company to "throw up a dyke around Oaks plantation." The work was conducted during the summer by the dredge *Watcoosa* and also included work at Big Island. The Oaks plantation was sold in 1907 by James Sprunt to I. D. Harrelson and I. T. Robbins under the firm name of Harrelson & Company. The sale of the plantation did not include the rice land property known as "Big Island." The plantation, bought by the partnership for $18,000, also contained fine turpentine timber. A decade later the partnership sold The Oaks, which then consisted of an outstanding 20,500 acres, to R.J. Ramseur, George W. Ramseur, and John J. Ramseur for approximately one dollar an acre. The new owners intended to cultivate rice on the land not timbered. In 1930 the Ramseur estate sold the main plantation to F. D. Adams of New York. At that time The Oaks was composed of 2,400 acres of farm and wooded lands and valued at $50,000. Several buildings, among them the old plantation home, stood on the property. By the 1950s The Oaks plantation was owned by Hargrove Bellamy of Wilmington, first president of the Lower Cape Fear Historical Society (Wilmington Star, October 15, 1893, February 9, 1917; Howell 1984:9; Wilmington Messenger, January 26, 1907; Wilmington News, August 27, 1930).

Russellborough or Bellfont Plantation

Located about a half mile south of Orton and within the boundary of that plantation are the ruins of Russellborough. In 1755 William Moore sold to Capt. John Russell, commander of the British sloop-of-war *Scorpion*, a tract of 55 acres of land adjacent to the town of Brunswick. Captain Russell named the tract after himself. The plantation subsequently passed into the possession of Alice Russell, his widow, who made a deed of trust, and the property subsequently again became a part of Orton plantation. It was sold March 31, 1758, by the executors of the estate of William Moore to the British governor and commander-in-chief, Arthur Dobbs, who occupied the house and who sold it or gave it to his son, Edward Bryce Dobbs, who conveyed it by deed dated February 12, 1767, to William Tryon, governor. Tryon had taken occupancy of the residence two years prior to the date of the deed. While Tryon was governor and living at the plantation, an armed resistance to the Stamp Act was carried out at his residence. In February 1766 a group of colonists led by George Moore and Cornelius Harnett and all opposed to the taxation of the American colonies on various goods surrounded Governor Tryon's house and demanded that the act be repealed (Sprunt 1896:67-71; New Hanover County Deeds, Books C-302; D-326; D-327; D-340; E-309; Mckoy 1973:129; Waddell 1989:42; Sprunt 1958:15-16).

During the first year that Gov. William Tryon resided at the Cape Fear plantation, he wrote a detailed description of the house at Russellborough in a letter to his uncle, the son of Earl Ferrers.

> This House which has so many assistances is of an oblong Square Built of Wood. It measures on the outside Side Faces forty five feet by thirty five feet, and is Divided into two Stories, Exclusive of the Cellars the Parlour Floor is about five feet above the Surface of the Earth. Each Story has four rooms and three light Closets. The Parlour below & the drawing Room are 20 x 15 feet Each; Ceilings low. There is a Piaza Runs Round the House both Stories of ten feet Wide with a Ballustrade of four feet high, which is a great Security for my little girl. There is a good Stable and Coach Houses and some other Out Houses (Sprunt 1958:17).

Governor Tryon also commented that if he were successful in purchasing the house, he would build a good kitchen. The house stood on a slight bluff above the river, where a landing was maintained. Tryon moved in 1770 to the newly constructed governor's "Palace" in New Bern, while Russellborough became the home of William Dry, who changed its name to Bellfont. The plantation dwelling and much of Brunswick Town were burnt by a British raiding party in May 1776. The town and plantation house were never rebuilt. Russellborough plantation was briefly mentioned in 1816, when the "55 acres between Orton and Brunswick" was advertised for sale. The exact location of the destroyed mansion, however, remained lost in the vegetation along the river until the 1890s. When discovered, only about 2 feet of the stone foundation wall remained above ground surface. Presently the ruins of Russellborough are maintained by the Brunswick Town State Historic Site (Sprunt 1958:18; Wilmington Gazette, April 6, 1816; Sprunt 1896:67-71; South 1960:65).

Sans Souci Plantation

On the east side of the Northeast Cape Fear River, above Hilton's place, was a plantation known as Grainger's or Sans Souci. A grant for the land was given to Caleb Grainger Sr. on April 20, 1745; the tract contained 640 acres on the north side of Smiths Creek, above the town. Caleb Grainger Sr. was the son of Joshua Grainger, one of the founders of Wilmington, which was called New Carthage in 1733. Grainger, a planter and inn holder, also served as a member of the assembly in 1746 and sheriff of the county in 1749. In 1747 Grainger sold to William Faris for £200 his tract of land. In 1752 Caleb Grainger purchased from a Daniel La Roche, a South Carolina merchant, what may have been the same property. The purchase included two adjoining tracts of 350 and 200 acres. In Caleb Grainger's will, dated 1763 and probated October 31, 1765, he left his "house and land on Smith's Creek and North East River" to his wife and children. One of his sons, Caleb Jr., was forbidden from selling the property until he reached the age of twenty-five in 1773 (New Hanover County Deeds, Book C-166, D-4-6; North Carolina Wills, XII:5-7; Powell 1968:537; Waddell 1989:50-51).

The younger Caleb Grainger's will, dated July 14, 1785, leaves to his wife, Mary, the "use of Plantation and lands on Smith's Creek during widowhood, then to brother William Grainger." On the day following the date of the will Caleb and his wife sold the 200-acre tract for £370 to Henry Toomer. By 1790 the now 315-acre tract of land commonly known as "Grainger's Plantation" was sold by William Blount of Greenville to William Henry Hill of Wilmington for £1200. William Hill obtained additional landholdings in the Smith's Creek vicinity. In 1788 he had purchased from his brother the Hilton plantation, and in 1795 he obtained by patent an additional 135 acres on the north side of the creek. It was apparently William Hill who gave the name Sans Souci to the plantation, as well as naming the Hilton plantation after his family. In the 1808 will of William Henry Hill Sr. he bequeathed to his son, William Henry Hill Jr., his plantation called Hilton on the south side of Smith's Creek, and to his other son, Joseph Alston Hill, the plantation and all his land on the north side of the creek called Sans Souci (North Carolina Wills, Book AB-120, C-126; New Hanover County Deeds, Book H-326, 427; I-142,193; L-295; McKoy 1973:33).

Joseph Hill retained ownership of Sans Souci until January 20, 1824, when he sold the plantation to Arthur J. Hill for $7,000. The plantation then consisted of 400 acres (with 160 acres considered tide swamp) and all the houses, tenements, and facilities. Sans Souci remained the property of Arthur Hill until 1871, when Arthur and Mary H. Hill, his wife, sold to Dr. John H. Hill "a tract of land known as Sans Souci" for $1,500. The plantation remained in the Hill family, but was transferred from John Hill to Thomas Hill. In 1874 Sans Souci was sold by Thomas Hill and his wife, Mary C. Hill, to John F. Garrell, ending the Hill family's century-long ownership of the plantation. John Garrell was successful at rice cultivation at Sans Souci, having as much as 300 acres planted (part of the which were an additional tract purchased). Garrell established a dairy at Sans Souci and leased it to W. T. Bray in 1876. Within the following years Garrell also established a "stock farm" and fertilizer plant. Sans Souci was also chosen as the site for the construction of a prison in 1879. John Garrell served as superintendent to the convicts housed on his plantation (New Hanover County Deeds, Book S-761; YY-156; KKK-235; NNN-230; Wilmington Star, October 15, 1876, July 10, 1879, October 6, 1882, December 21, 1884; Klein and Pickens, 1993:16).

By 1884 Garrell had taken out several mortgages on Sans Souci to maintain his diverse industries. When he was unable to meet payments, the First National Bank assumed ownership of a large portion of the plantation. In 1887 the First National Bank and the Cape Fear Agricultural Association agreed to the sale of Sans Souci. In order to complete the sale, the association had until December 1, 1888, to repair the plantation, plant a crop, and make regular payments to the bank. The association failed to meet the requirements by the end of the year and the bank chose to sell Sans Souci to another buyer. On February 4, 1889, the plantation was purchased from the bank by William H. Wiggins, for $10,000, who in turn sold the property the following year to William A. Topping. The plantation was divided into small tracts in 1891 with a house on each, and sold off separately (New Hanover County Deeds, Book TTT-72; AAAA-87;

1-205, 216; Wilmington Evening Dispatch, January 5, 1904, May 27, 1907, March 8, April 24, 1906; Wilmington Messenger, March 3, 1891; Wilmington Weekly Star, March 24, April 7, 1899).

Sans Souci consisted of 390 acres in 1897. Above the mouth of a creek that flowed on the southwest side of the plantation, a wharf was constructed. Steamers that drew from 10 to 12 feet of water could reach the wharf. Near the turn of the century, the new J. F. Garrell & Co. firm was established, with the main office at Sans Souci. Garrell maintained a truck farm and a fertilizer factory at the plantation until the factory was destroyed by fire in March 1899. The factory was later rebuilt. A number of the tracts, each less than 20 acres, owned by the Garrell company, were sold. On one of the tracts a brickyard was established by the Roger Moore's Sons & Company. Four tracts of about 175 acres were sold to C. D. Weeks in 1912. In early 1917 the "Sans Souci Abattoir" established by Garrell was acquired by the Carolina Packing Company. Further construction and expansion of the plant occurred over the following months. Following World War I, the Sans Souci "farm" saw additional industrial development (Wilmington Evening Dispatch, January 5, 1904, May 27, 1907, March 8, April 24, 1906; Wilmington Messenger, March 3, 1891, December 24, 1897; Wilmington Weekly Star, March 24, April 7, 1899, January 7, March 25, 1917).

Sedgeley Abbey

On the peninsula south of Wilmington, just northeast of Doctor Point, was a large tract of land on which was located a colonial mansion known as Sedgeley Abbey built in the 1700s. The land was probably not used as a rice plantation, although some of the property was in inland swamp. Most of the land, however, seems to have been a sandy plain, thinly covered with pines and scrub oaks. The property located near Gander Hall also touched the Haulover plantation on the sea side. A "perfectly straight avenue" lined with trees connected the mansion with the sound. A corduroy road extended towards the river. Sedgeley Abbey, constructed from coquina, was described "as one of the grandest colonial residence of the Cape Fear." Historian James Sprunt compared Sedgeley Abbey in dimensions and appearance to the two-story, cellared Governor Dudley mansion in Wilmington. A corduroy road was also built across the peninsula to a river landing. Sprunt indicates that the plantation house was constructed in 1726 by a Peter Maxwell, but according to his headstone in the St. Philip's Church graveyard at Brunswick, Peter Maxwell was born in 1753. In June 1788 Peter Maxwell, however, did purchase from William Lord 320 acres lying at the head of Lord's Creek where supposedly he maintained Belmede plantation. Presently Lord's Creek flows into the river and Telfairs Creek terminates on the southern end at Snow's Cut (Waddell 1989:68; Hall 1975:217-218; Sprunt 1896:50-51; McKoy 1973:31; Wilmington Dispatch, March 16, 1915).

John Guerard, sometimes spelled Gerrard or Geuard, purchased in 1776 a 600-acre tract of land adjacent to Belmede from William Dry, Brunswick port collector. In 1778 Guerard purchased another 920 acres and also received grants in 1780 totaling an additional 970 acres near the sound. Guerard lived with his wife, Rebecca, on this property eventually called Sedgeley Abbey until his death in 1789. In his will, made on February 6, 1786, he left to Rebecca "the whole plantation, horses, hogs, sheep, household furniture, with all the lands containing 1,000 acres, also seventeen negro slaves." In 1790 Rebecca Geuard, the widow of John, entered into a marriage agreement with Peter Maxwell, "an English gentleman of wealth and refinement," and thus secured "the estate of the said Rebecca." Included in the agreement was "all that tract of land situated and lying at or near the head of the Sound in New Hanover county aforesd where John Geuard late of New Hanover county dec'd usually resided and at the present occupied by the said Rebecca Geuard." The plantation at which Rebecca and Peter planned to live contained approximately 1,600 acres. Peter Maxwell received a patent in 1796 for another 100 acres at the head of the sound. Peter Maxwell's holdings as a result of his marriage to Rebecca now "covered a vast tract of land which extended from the present Doctors Point on the east bank of the river, south to a small creek on the southern side of that ancient landmark and sand hill, the 'Sugar Loaf,' thence southeast to the Sea Beach, thence northwardly to his own northern line, thence westwardly to the head of Lord's Creek, continuing on to the beginning on the bank of the Cape Fear River." Both the Joshua Potts map of 1797 and the Price and Strother map of 1808 indicate the "Maxwell" dwelling in that section of the peninsula. Sedgeley Abbey is most closely associated with Peter Maxwell (Waddell 1989:68; Hall 1975:217-220; Sprunt 1896:50-51; McKoy 1973:31; New Hanover County Deeds, Books P-445; G-213; G-219; L-644; L-317).

Peter Maxwell maintained cultivated fields, as well as indigo farms, orchards, and even a horse track at Sedgeley Abbey for a number of years, although by 1801 he decided to place the plantation up for rent (McKoy 1973:120-121; Hall 1975:221; New Hanover County Deeds, Books L-1; P-329). The following description appeared in the Wilmington Gazette, of December 24, 1801:

> To Rent - for a term of years, or may be agreed on. That fruitful, healthy and beautiful Plantation, near the head of the Sound, known by the name of Sedgeley Abbey for which there is a very commodious and well-furnished dwelling house, open to the sea beach by an avenue, and about half a mile from the Sound, which at all Seasons affords abundance of Fish and the best Oysters in the State. There is also on the same a good Kitchen, Smoke-house, Barn, Stable, and Chairhouse, with a remarkable fine Peach Orchard --- The land is well adapted to the culture of Corn, Cotton and Indigo, there is adjoining the house about 16 acres of rich inland swamp, which can be easily overflowed, much of which is cleared, and will produce excellent Rice. Whoever may rent the same can be accomodated with most kinds of plantation furniture, and supplied with any stock belonging to the land at a valuation. For terms apply in Wilmington to Peter Maxwell, (Wilmington Gazette, December 24, 1801).

Rebecca Maxwell died on February 12, 1810, and was buried beside her first husband, John Guerard, in the cemetery at St. Philip's Church. Peter Maxwell followed his wife in death two years later. Peter and Rebecca bore no children, so Peter's will (recorded at the New Hanover County courthouse the previous year) directed that his extensive holdings be sold and the money divided among his two cousins, John Robeson and Peter Robeson, both young weavers of North Britain (McKoy 1973:121). Peter Maxwell declared that:

> If I die within 30 miles of Wilmington I request that I may be buried by my wife at Brunswick. I give and devise to my executors my plantation and houses at the Sound which was devised to my wife by the will of John Gerrard supposed to contain 1,000 acres, but which contained 900, by them to be sold. . . . Also . . . 600 acres opposite said plantation left to Mrs. Maxwell by will of John Gerrard. Also two-thirds of a tract containing 920 acres bought by me from Messrs. Warren & Hasford. Also 100 acres a patent, now in suit for possession, at head of Sound. Also 1380 acres lying to northward of first mentioned plantation, on head of Lord's Creek. Also lot and house in Fayetteville. Also an improved lot of one-half acre in Wilmington . . . (New Hanover County Wills, Book A-32, 211).

In accordance with the expressed wishes of the late Peter Maxwell, the great estate was sold off by the executors of his will. About 800 acres of land, including Sedgeley Abbey, was sold in 1815 to Sedgwick Springs for $950. The larger, 1,380-acre, tract was purchased that same year $295 by James Telfair, after whom the creek on the property is named. Sedgeley Abbey plantation was again sold on December 31, 1821 by Sedgwick Springs, for $1750, to Hosea Pickett, who in turn deeded it the following year to Henry B. Howard in exchange for a loan. Upon repayment of the loan, the deed to Howard was voided (New Hanover County Deeds, Book P-445; S-38; R-542 Mckoy 1973:31; Price and Strother 1807).

Hosea Pickett apparently paid off his debt to Henry Howard, as the plantation remained in his possession until after the Civil War. Sedgeley Abbey plantation was placed up for sale in November 1866, following Pickett's death. At that time the plantation consisted of "about 3,000 acres, situated upon the Federal Point road." There were "about 500 acres of good farming land." About 275 acres were cleared and fenced, with an ample amount of timbered land. In addition to a five-room dwelling house, the plantation also included a stable, barn, and servants' quarters (Wilmington Daily Journal, November 10, 1866).

By the 1870s Sedgeley Abbey lay in ruins. By the turn of the century only the cellar remained. The ruins of the plantation house lay obscure for a number of years. In 1978 Mark Wilde-Ramsing, now of the Department of Cultural Resources, located the cellar remains of Sedgeley Abbey west of Highway 421. The cellar had been dug into stone approximately 8 feet deep. When revisited again in 1992, the foundation measured 30 feet by 12 feet, and on the western end sank 6 feet below the normal ground surface.

The land was at that time being held in trust by a local bank for an heir. The bank has recently sold the property to a development corporation in order to replenish the trust fund. Local preservation efforts are in progress to save the ruins of the historic plantation house (Sprunt 1896:50-51; Wilmington Star, January 7, 1898; UAU Site Files; FPHPS Newsletter 1995).

Snow's Point Plantation

Permanent settlement of the lower Cape Fear region can be directly linked in part to the establishment of a plantation at Snow's Point. In 1725 proprietary and later royal governor George Burrington chose to establish a plantation of his own on the lower Cape Fear, on the west bank of the stream just above the mouth of present-day Walden Creek. During that summer Burrington made grants for more than 22,000 acres, of which 19,000 acres were in the names of Maurice Moore, his brother Roger Moore, and the governor. Limited information is known about Burrington's residence or plantation. Early maps of the lower Cape Fear, dating from the 1730s and 1740s, clearly indicate that Walden Creek was previously known as Governors (or Burringtons) Creek and that Snows Point was once known as Governors (or Burringtons) Point (Angley 1983:6; Stick 1985:23).

Snow's Point acquired the name from a subsequent owner, Robert Snow, who occupied the plantation in the 1750s or early 1760s. Robert Snow, a prominent rice planter, also served as a member of the vestry of St. Philips Church in Brunswick Town, a member of a grand jury, a road commissioner, and a justice of the peace for Brunswick County (established from New Hanover county in 1764). It is not known whether Robert Snow occupied the same residence as the former governor Burrington; but when Snow separated from his wife in 1768, the division of their property indicated that their home was lavishly furnished. Provisions regarding slaves also attest to a considerable agricultural production. Robert Snow's plantation is indicated on the Collet map of 1770. All census records for Brunswick County from 1790 to 1820, however, fail to indicate the presence of the Snow family at the point or within the county (Angley 1983:12; Waddell 1989:14; Collett 1770).

The former Snow's Point plantation apparently passed into the hands of the Hankins family by the turn of the century. In 1800 a Thomas Hankins was residing in Brunswick County, apparently at Snow's Point. Thomas Hankins may have inherited the plantation in 1802 from a Dennis Hankins. Thomas Hankins, died at his plantation on August 30, 1831 at the age of fifty-one. While visiting his grandfather, young Thomas Griffith Hankins, aged thirteen, learned of his father's death. The news was more than Thomas could bear, and he too departed this world three days after his father. By early the following year the Snow's Point plantation was owned by Samuel Potter, who was successful in raising sugar cane on the property. In January 1842 Samuel Potter apparently switched from growing sugar cane to raising corn, grapes, cattle, and hogs. Potter also maintained a brickkiln at Snow's Point. He offered his 1,200-acre plantation for sale in 1842, stating that "a comfortable dwelling, necessary out buildings, barns, stables, etc., a fine Orchard and quite extensive vineyard" were to be found on the property (Wilmington Gazette, May 7, 1805; Wilmington Cape Fear Recorder, September 14, 1831, January 25, 1832; Wilmington Chronicle, January 5, 1842; Hall 1980:32; Angley 1983:21).

By 1850 Snow's Point plantation was partially owned by his son William Hankins, who was twenty-three years of age in 1831, the time of Thomas Hankins's death. William's portion of the property consisted of 100 acres of improved land and 600 acres of unimproved land. William was also the owner of twenty-four slaves and maintained a substantial residence. He produced small amounts of corn and sweet potatoes and raised cattle and swine. The remaining portion of the plantation, or at least a dwelling, was maintained by 1847 by Samuel Beery, the well-known shipbuilder at Wilmington. In March 1847 Beery reported a second incidence of his "house at Snow's Plantation" being burned. The suspected acts of arson may have prompted Beery to consider relocating elsewhere, something he soon did. Information on Snow's Point plantation is lacking following the Civil War. Presently the Military Ocean Terminal is located adjacent to Snows Point (Wilmington Daily Journal, February 18, 1852; Angley 1983:23)

York Plantation

Just south of Brunswick Town was located York, one of several plantations belonging to Nathanial Moore, a brother of Col. Maurice Moore and "King" Roger Moore. It appears that Moore did not live at York. An examination of deeds and other historical information provided no further description of the eighteenth-century plantation (Waddell 1989:4; Angley 1983:15).

Fortifications

Twenty-three fortifications, batteries, or defensive structures have been identified along the Cape Fear and Northeast Cape Fear Rivers **(Figures 13,14,15,16)**. Descriptions have been provided for the following sites:

James Forte
Colonial fort at Reaves Point
Revolutionary fort at Wilmington
Fort Johnston/Fort Pender
Fort Caswell
Battery Campbell
Battery Shaw
Fort Holmes
Fort Hedrick
Fort Anderson/St. Philip
Town Creek Battery
Nine Mile Battery
Battery Lamb
Zeke's Island Battery
Fort Fisher
Mound Battery
Battery Buchanan
Fort Strong/Stokes/Davis
Fort French/Lee
Cannoneer Battery
Fort Meares/Campbell
Fort Hill/Meares
Wilmington defenses

James Forte

During the late seventeenth century a fortification known as James Forte was supposedly located on the eastern shore of the Cape Fear River below Wilmington. Its noted location on the eastern shore still presents a mystery, since the earliest settlements were on the western shore. Nevertheless, supposedly for defense, the king provided a cannon and munitions that may have been placed at the small box-shaped James Forte. Various accounts have associated the fort with the attempted settlement of the region in the early 1660s by adventurers from Massachusetts or a group of settlers from Barbados led by John Vassall. The latter group began a colony, called Charles Towne, at the mouth of Town Creek on the Cape Fear River (then called the Charles River in honor of the king) in 1664, with Capt. John Yeamans appointed by the proprietors as governor. On what is today known as Clarendon plantation, the settlement reached 600 inhabitants before it was abandoned in 1667. Possible hostilities with the local Indians, who were often taken as prisoners by the New England men, may have contributed to the eventual withdrawal of the Clarendon settlers (Thomas 1959:47; Sprunt 1992:30-32).

Two known maps from the period illustrate James Forte. The first is a rough sketch by John Locke in 1662, pre-Charles Towne, from the original of Nicholas Shapley. The original drawn by Shapley for his own use has been lost. The inked map shows James fort as a crenellated building with two tiers surmounted by a flag. The location of the fort is shown to be on the eastern side of the Charles River, opposite four creeks labeled from north to south respectively as the "Greens," "Greenlakes," "Hiltons," and "Indian" Rivers. Indian River has been established as Town Creek.

The second map to show James Forte was drawn about 1679 by James Lancaster. The map is one of four manuscript maps from the Blathwayt Atlas located in the John Carter Brown Library. The Lancaster map shows James Forte as a crenallated tower. Flying above the fort is the flag of St. George-a red cross on a white field. The fort is located on the eastern side of the river opposite the same four "rivers" identified in the previous map. The exact site of James Forte has not been determined.

Colonial fortification at Reaves Point

In his Tales and Traditions of the Lower Cape Fear (1896) and again in his Cape Fear Chronicles (1914), historian James Sprunt gives an account of a colonial fort located upon the bluff at Howe's Point, presently known as Sunny Point. Located directly behind the fortification was the residence of Gen. Robert Howe, Revolutionary War patriot and soldier. Writing in 1896, James Sprunt states:

> . . . on a bluff called Howe's Point, are the remains of a Colonial fort, and behind it the ruins of a residence, in which, tradition says, was born in 1730 General Robert Howe. He was the son of Job Howe, an educated and wealthy planter on the Cape Fear, who left, in 1748, a plantation to each of his five sons.
>
> It is said that Robert's estate was on Old Town Creek, and that he resided there. It is also stated that he lived for a time at Kendal, and that on the 12th of May, 1776, the British Generals Cornwallis and Clinton landed with a troop of nine hundred men and ravaged General Howe's plantation. Mr. Reynolds, the present intelligent owner and occupant of the Howe place behind the Colonial fort, who took part in building Fort Anderson, says that his father and grandfather lived with General Howe on this place during the war and took part in a defence of this fort against the British, who drove the Americans out of it; that the latter retreated to Liberty Pond, about a half mile in the rear, pursued by the British; that a stand was made at this pond, the Americans on the west and the enemy on the east side, and that the blood which flowed stained the margin of the beautiful sheet of water which still bears the name of Liberty Pond; and that the Americans again retreated as far as McKenzie's Mill Dam, behind Kendal, where the British abandoned the pursuit and returned to their ships of war (Sprunt 1896:80-82).

In his subsequent writings on the history of the Cape Fear River, Sprunt mentions having visited the fortification site at Howe's Point. He indicates that a short distance from the Howe place he found, within "the woods and upon a commanding site near the river, under many layers of pine straw, the clearly defined ruins of an ancient fort, which was undoubtedly of colonial origin." Once again recording the accounts of Mr. Reynolds, the former owner of the Howe plantation, Sprunt writes that "long before the War of the Rebellion this fort was erected by the colonial government for the protection of the colonists against buccaneers" (Sprunt 1992:60).

In 1984 an archaeological survey was conducted on Reaves Point in an attempt to locate the remains of the fortification. Although earthen mound remants were found that

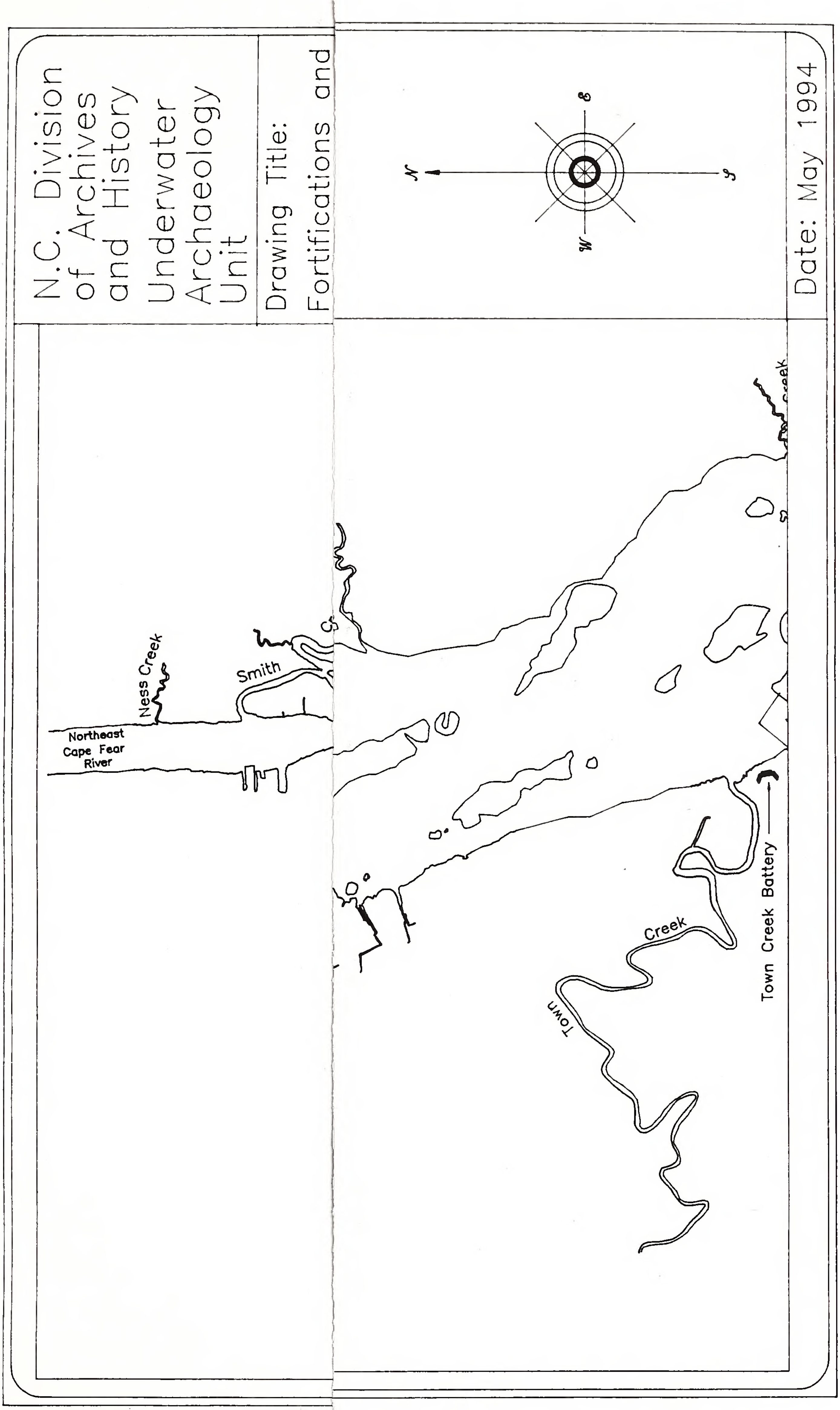
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Figure 13. Fortifications an

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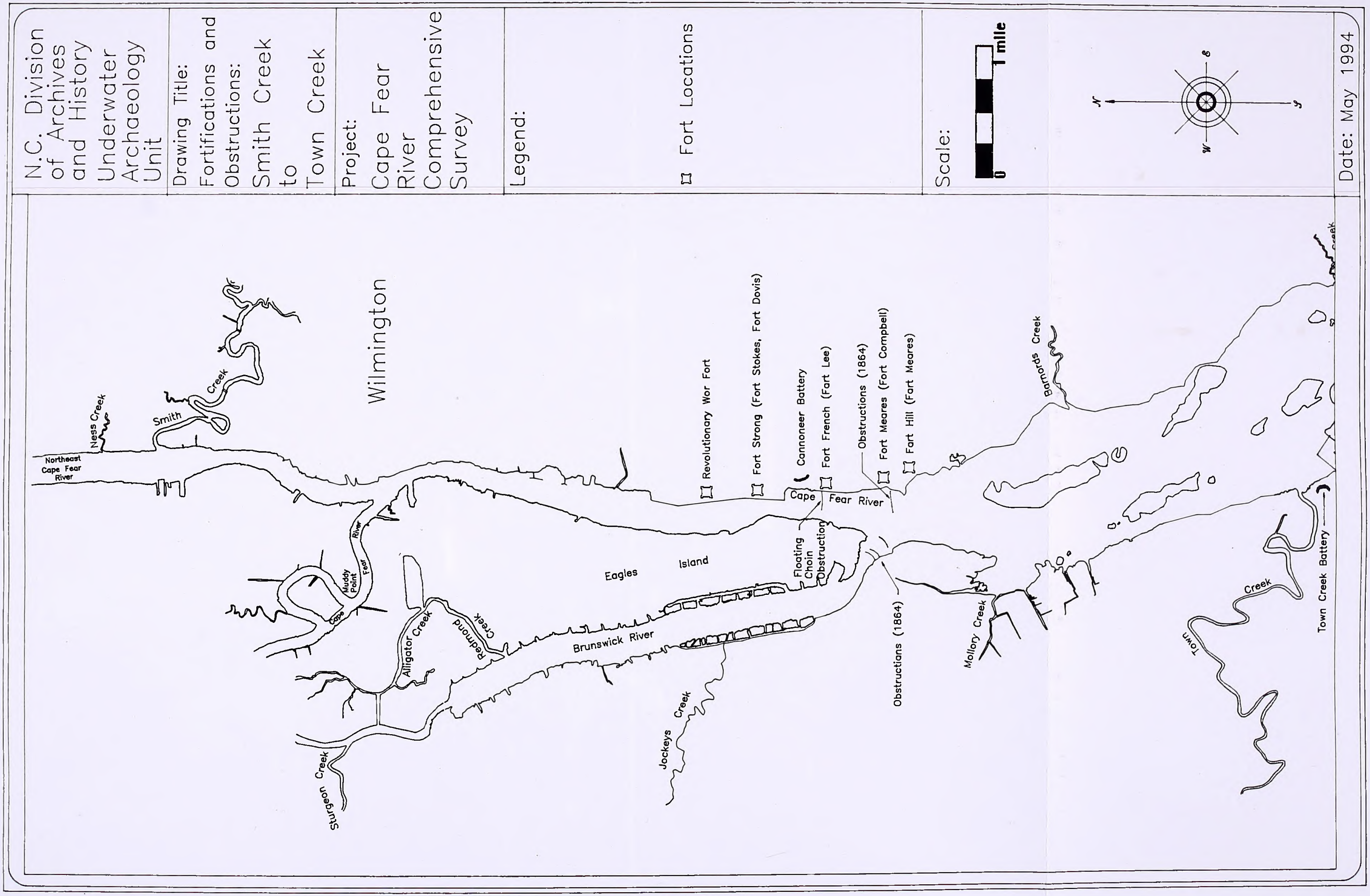
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Project: Cape Fear River Comprehensive Survey
Legend:
⌑ Fort Locations
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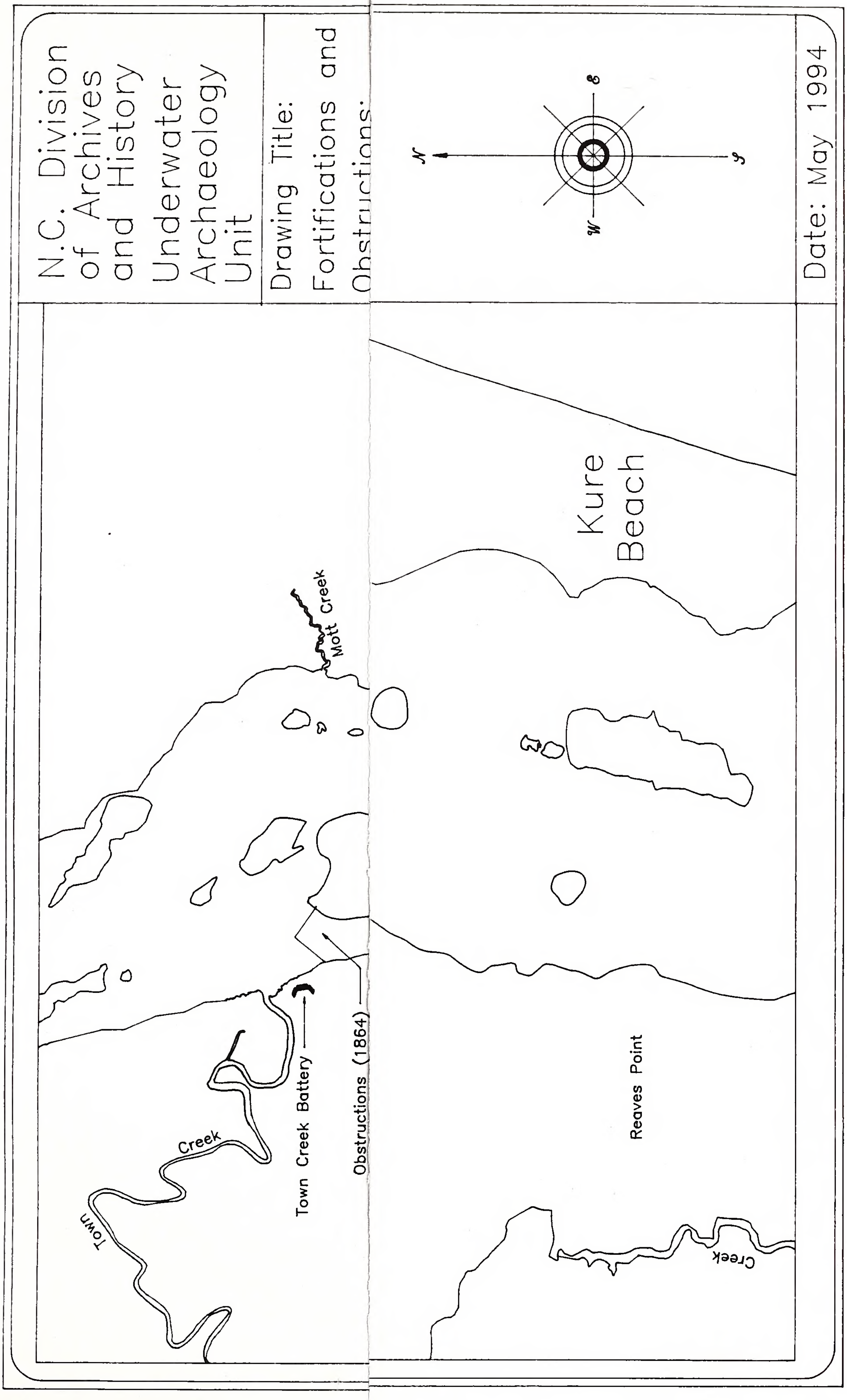
Date: May 1994
Wilmington
Northeast Cape Fear River
Ness Creek
Smith Creek
Revolutionary War Fort
Fort Strong (Fort Stokes, Fort Davis)
Cannoneer Battery
Fort French (Fort Lee)
Obstructions (1864)
Fort Meares (Fort Campbell)
Fort Hill (Fort Meares)
Cape Fear River
Floating Chain Obstruction
Obstructions (1864)
Barnards Creek
Eagles Island
Brunswick River
Muddy Point
Cape Fear River
Alligator Creek
Redmond Creek
Sturgeon Creek
Jockeys Creek
Mallory Creek
Town Creek
Town Creek Battery

Figure 13. Fortifications and Obstructions: Smith Creek to Town Creek.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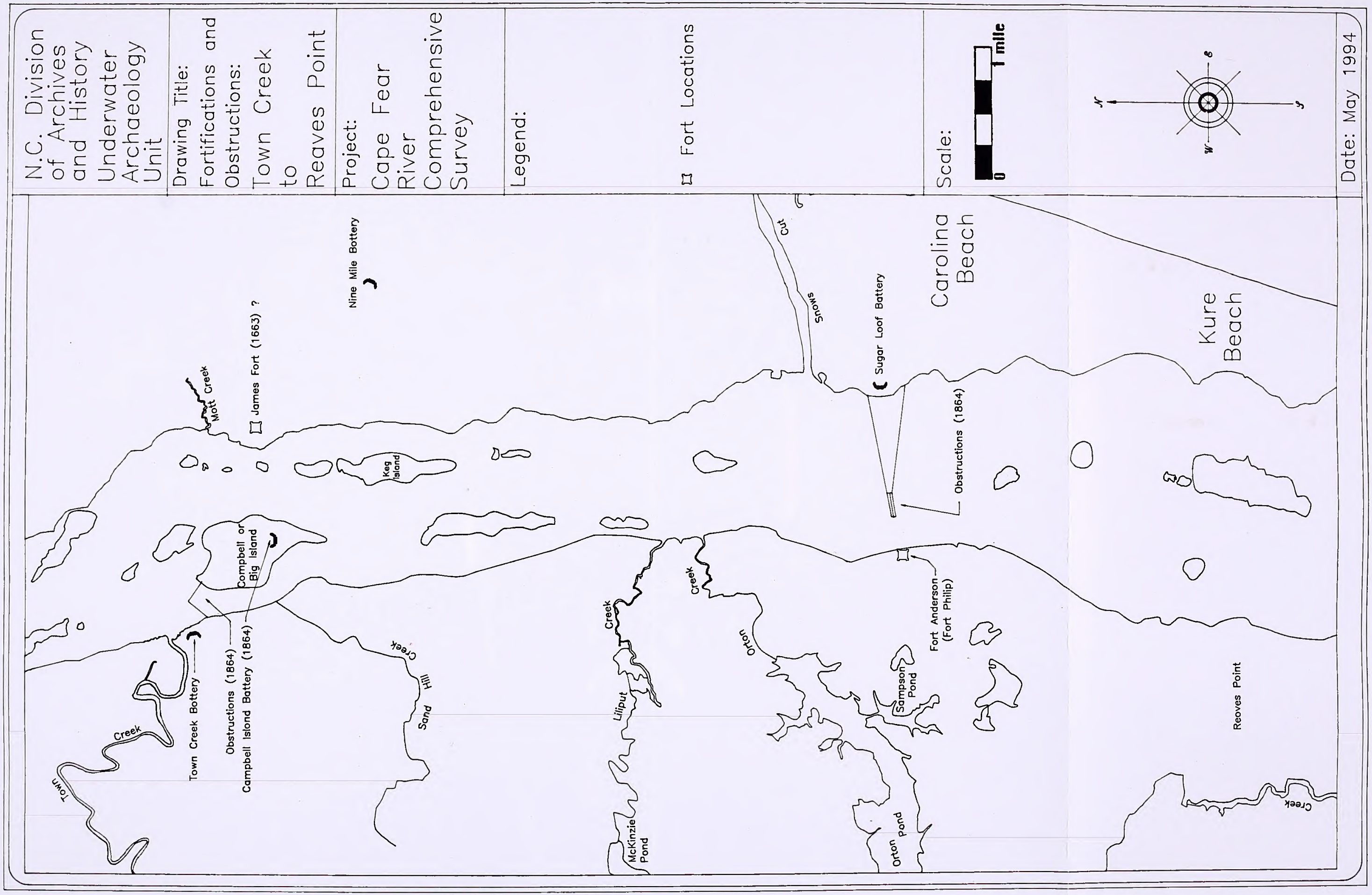
Town
Creek
Reaves Point
Creek

Figure 14. Fortifications and C


N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title: Fortifications and Obstructions: Town Creek to Reaves Point
Project: Cape Fear River Comprehensive Survey
Legend:
Fort Locations
Scale:
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S
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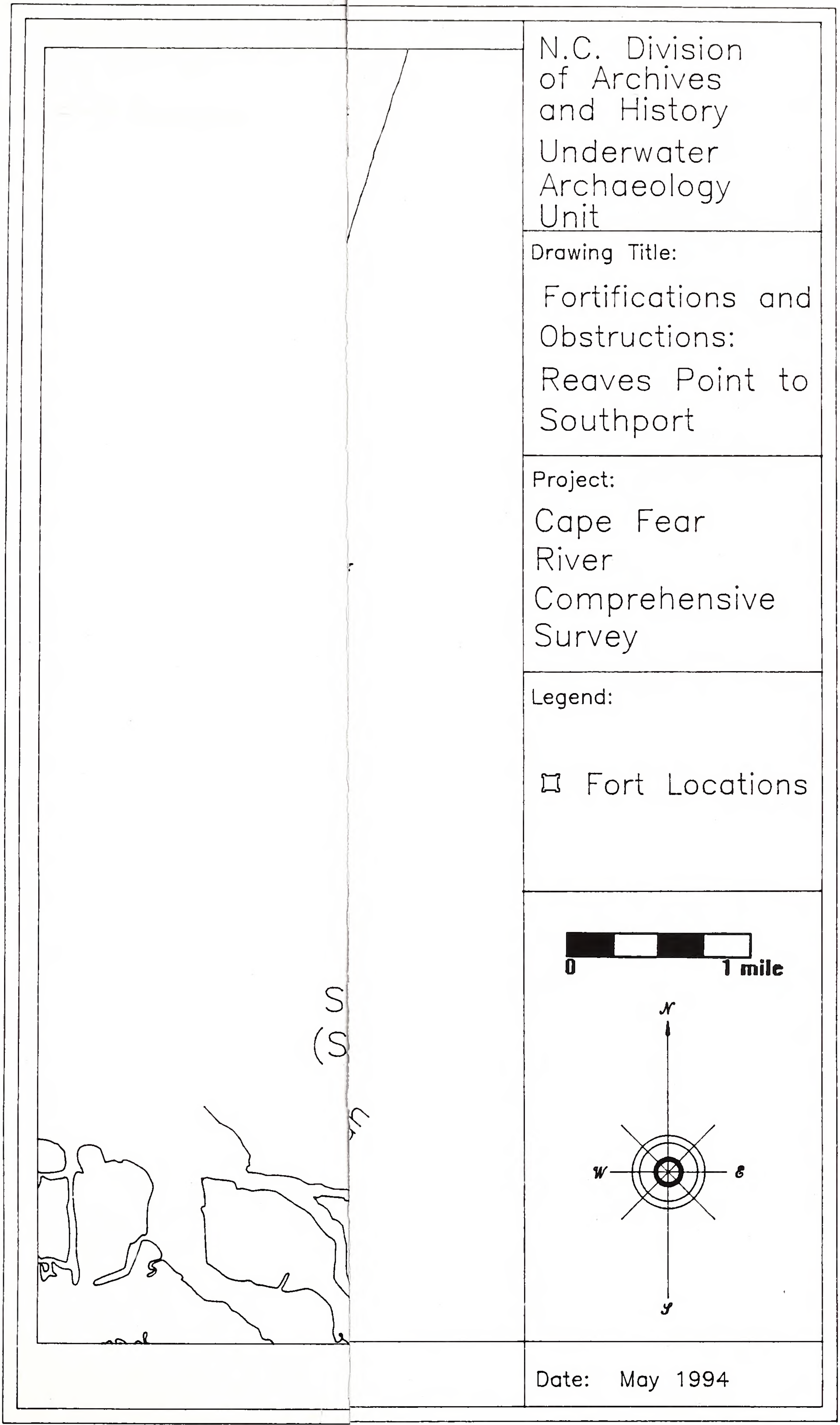
Date: May 1994
Nine Mile Bottery
James Fort (1663) ?
Mott Creek
Keg Island
Compbell or Big Island
Snows Cut
Sugar Loof Battery
Carolina Beach
Kure Beach
Obstructions (1864)
Fort Anderson (Fort Philip)
Town Creek Bottery
Obstructions (1864)
Campbell Island Battery (1864)
Town Creek
Sand Hill Creek
Liliput Creek
McKinzie Pond
Orton Creek
Sampson Pond
Orton Pond
Reoves Point
Creek

Figure 14. Fortifications and Obstructions: Town Creek to Reaves Point.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Underwater Archaeology Unit
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Fortifications and Obstructions: Reaves Point to Southport
Project:
Cape Fear River Comprehensive Survey
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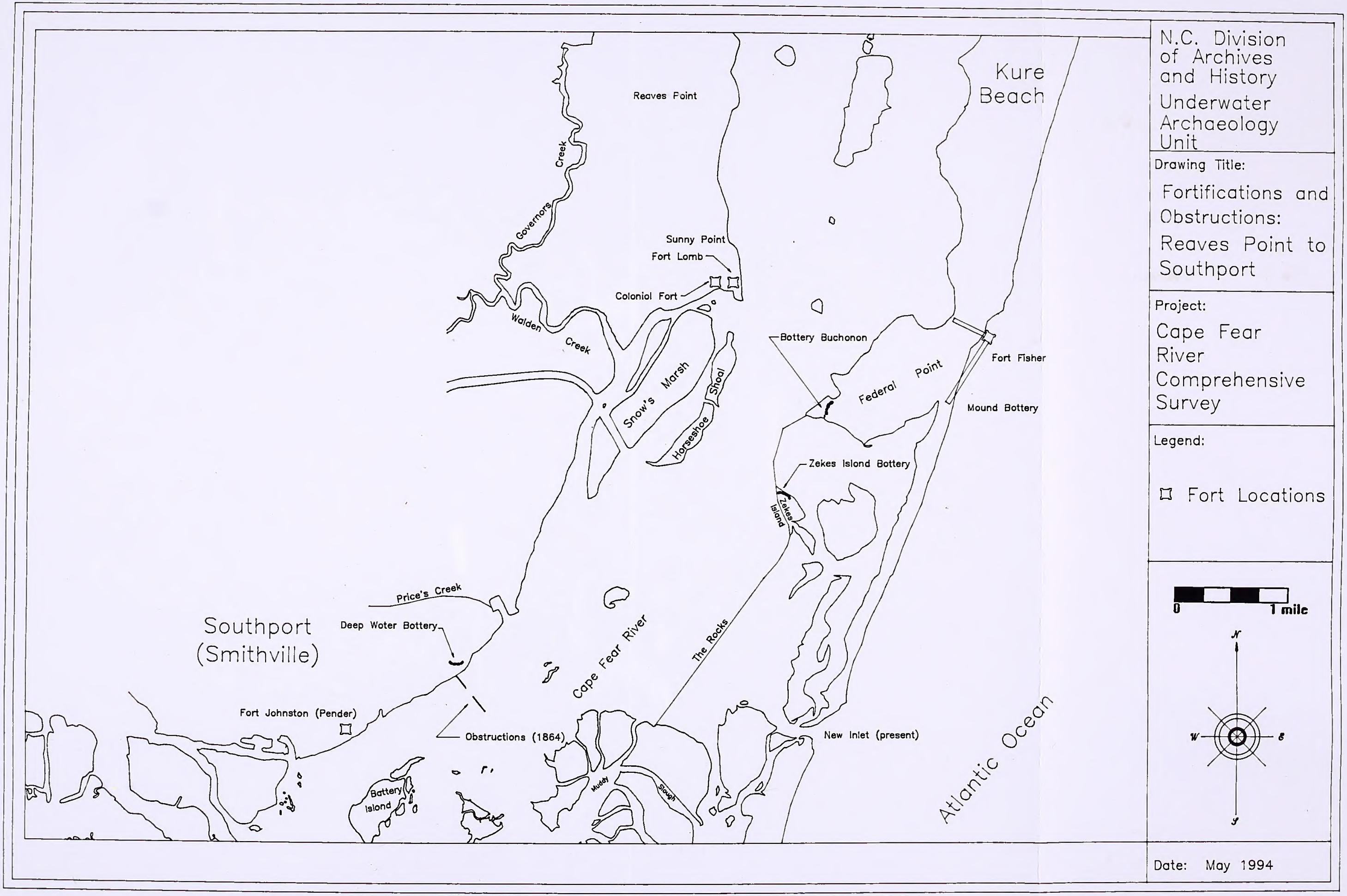
Figure 15. Fortifications and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Snow's Marsh
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Horseshoe
Battery Buchanan
Federal Point
Fort Fisher
Mound Battery
Zekes Island Battery
Zekes Island
Price's Creek
Southport (Smithville)
Deep Water Battery
Cape Fear River
The Rocks
Fort Johnston (Pender)
Obstructions (1864)
Battery Island
Muddy
Slough
New Inlet (present)
Atlantic Ocean

Figure 15. Fortifications and Obstructions: Reaves Point to Southport.

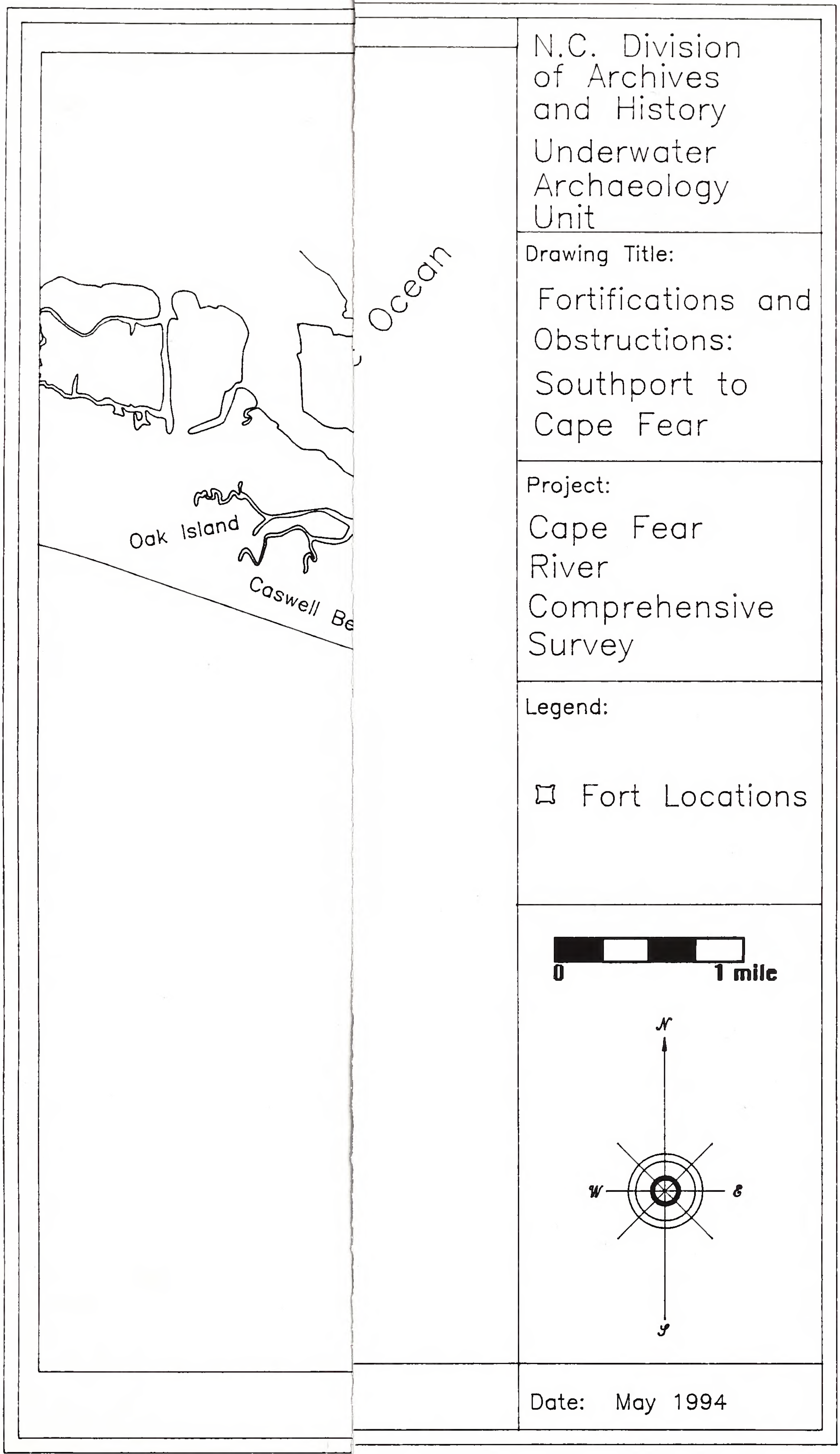
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Figure 16. Fortifications an

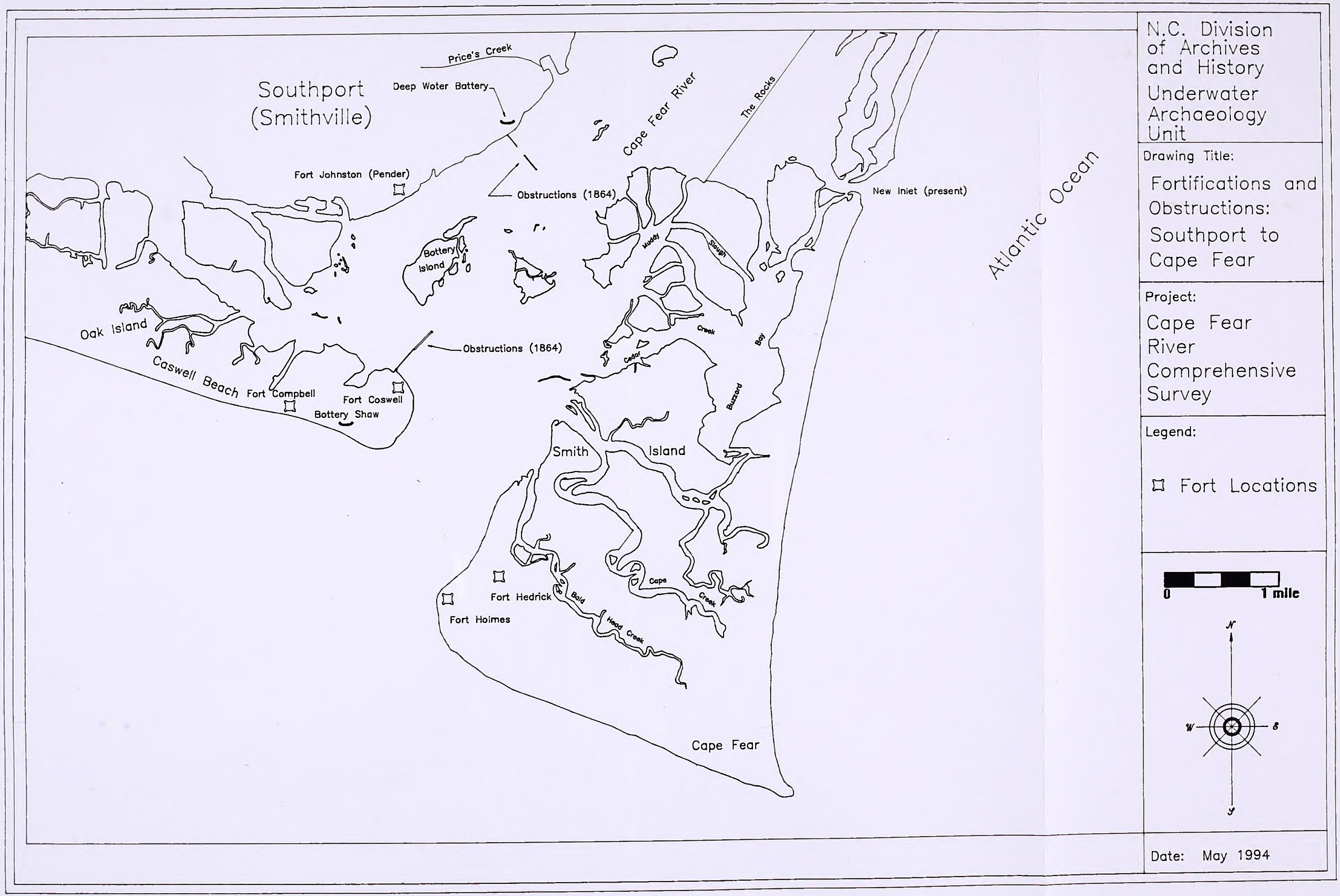
Southport
(Smithville)
Price's Creek
Deep Water Battery
Fort Johnston (Pender)
Obstructions (1864)
Cape Fear River
The Rocks
New Inlet (present)
Atlantic Ocean
Battery Island
Muddy
Slough
Creek
Cedar
Bay
Buzzard
Oak Island
Caswell Beach
Fort Campbell
Fort Caswell
Battery Shaw
Obstructions (1864)
Smith Island
Cape Creek
Fort Hedrick
Fort Holmes
Bald Head Creek
Cape Fear
N.C. Division of Archives and History
Underwater Archaeology Unit
Drawing Title:
Fortifications and Obstructions: Southport to Cape Fear
Project:
Cape Fear River Comprehensive Survey
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Figure 16. Fortifications and Obstructions: Southport to Cape Fear.

may have been constructed in association with the Revolutionary battle fought on Howe's plantation, results of test excavations revealed "no signs that they were built or used as fortifications" (ARC 1984). The location of the fort has never been clearly established. Much of Reaves Point has been disturbed or destroyed by the existing Military Ocean Terminal facilities.

Revolutionary fortification at Wilmington

On the east side of the Cape Fear River at Sunset Park, where Northern Boulevard ended, was the site of an old fortress of Revolutionary times. Modern development and construction have likely destroyed all indications of this fortification (Wilmington Star, September 22, 1912).

Fort Johnston/Fort Pender

Fort Johnston was constructed between 1748 and 1764 along the lower Cape Fear River at the present town of Southport in Brunswick County and was built and named for Governor Gabriel Johnston. Initial construction of the fort came in response to Spanish attacks along the coast of the North Carolina colony in the 1740s. By 1745 continued fears of Spanish attack along the Cape Fear River prompted the colonial assembly and the governor to begin work on a defensive installation. Legislation was enacted in April 1745 to build "Johnston's Fort" at a site selected by Johnston himself and a group of prominent political leaders. The facility was to be large enough for twenty-four cannons and was to be financed by powder money collected at Port Brunswick (Powell 1968:179; Sprunt 1992:52-55; Angley 1990:1-2).

Construction began on Fort Johnston soon after passage of the 1745 legislation, but was delayed nearly three years, which resulted in a costly price for the local community. In the late summer of 1748, while construction was still under way at the fort, the long-feared Spanish raid into the lower Cape Fear became a reality (Angley 1990:1-2).

On the morning of September 4, two Spanish privateers and a captive sloop crossed over the main bar and sailed upriver. The Spaniards entered the Cape Fear after taking local pilots hostage, with the intention of taking "the negroes that were at work" on Fort Johnston. Being a Sunday "few or none" of the Negroes were to be found at work on the fort, most having been taken to Brunswick Town. Realizing their mistake, the Spaniards forced the pilots to guide them to Brunswick Town. Four miles below Brunswick a large number of armed men were put ashore to attack the town by land. The Spanish sloops proceeded "till they anchored before the town." The people of Brunswick Town, taken completely by surprise, fled from the combined land and sea attack leaving their town and several vessel in the harbor to be captured. A call for assistance "alarm," was sent out by the inhabitants, and a counterattack mounted. Only after three days of fighting were the Spanish invaders finally repulsed (Charleston

Gazette, October 31, 1748; Lee 1965:232-233; Angley 1990:2; Green 1992:19-20; Clark XXIII:535).

Governor Johnston announced in 1749 that the fort named in his honor had been completed, although others disputed that claim. One observer reported that the fort was poorly constructed and that its ordnance consisted merely of four rusty cannons. Despite those conditions, an officer and two men were stationed at Fort Johnston by October 1750, and the following year the fort began service as a quarantine station for vessels arriving from southern ports. In 1758 a committee was appointed to inspect Fort Johnston and make recommendations concerning its continued use. In December of the following year the committee reported that the fort was seriously run-down and badly in need of extensive repairs and improvements. A contract was awarded in January 1760 to William Dry for repairs of the installation. Four years later the legislature announced that the contracted work at Fort Johnston had finally been completed. Fort Johnston remained an active installation with less than one hundred men until the eve of the American Revolution (Angley 1990:2-3; Carson 1992:20; Reaves 1978:2).

In mid-July 1775 a whig force of approximately 500 armed men moved downriver from Brunswick Town and attacked the British fort. Fearful that the fort would be used as a staging area for attempts to seize private property and incite slaves against their masters in the lower Cape Fear River, the colonists burned Fort Johnston and its ancillary structures, except for the Garrison House. North Carolina's last royal governor, Josiah Martin, who had recently taken refuge at the fort, was forced to flee to an armed British vessel in the harbor. With the abandonment of Fort Johnston, the Cape Fear River was left defenseless during the Revolution (Angley 1990:4).

Encouraged by the presence of river pilots residing near Fort Johnston since before the Revolution, the General Assembly in 1784 enacted legislation providing for each licensed pilot to be allotted one acre of land for residential use. In 1792 the General Assembly formally enacted "An Act to lay off and establish a town near Fort Johnston." The town was incorporated as Smithville, (named for Benjamin Smith) and included 150 acres in addition to the destroyed fort and pilots' places of residence. In March 1794 Congress enacted legislation to provide again for the defense of the lower Cape Fear. In July 1795 the state of North Carolina conveyed the site of the old fort and portions of the town of Smithville for the new fort's construction (Angley 1990:5-6).

Construction of a new Fort Johnston began almost immediately over the ruins of the old fort, but lengthy delays prevented the completion of the fort for several years. Not until 1816 was work nearly complete at the fort. Facilities at that time included a battery of eight guns, a blockhouse, a guardhouse, a hospital, a group of buildings for enlisted men, and the still-extant Garrison House or officers' quarters. Fort Johnston was soon eclipsed by the much larger and more heavily armed Fort Caswell, begun in 1825 on Oak Island. By 1836 both forts were evacuated, however. Reactivated briefly during the Mexican War, Fort Johnston was again abandoned in 1852. From that time until the eve of the Civil War, it was under the solitary care of an ordnance officer (USACOE 1865d; Angley 1990:7).

On April 16, 1861, four days before North Carolina seceded from the Union, Forts Johnston and Caswell were seized by the Confederate forces. Initially Fort Johnston served as a center for training and recruitment. Later only a small garrison served at the fort but saw no major military action. During the Civil War, Fort Johnston and Fort Caswell were among several fortifications improved or constructed along both sides of the river from its mouth northward to Wilmington. The most notable fortification on the lower Cape Fear region was Fort Fisher. When Fort Fisher finally fell to Union forces on January 15, 1865, the remaining defensive forts along the river, including Fort Johnston, were abandoned by their Confederate troops. A small garrison remained at Fort Johnston from the end of the war until 1881, at which time the last troops were removed. The name Fort Johnston was changed for a short duration during the war to Fort Pender, to honor General William Dorsey Pender, who was killed in the battle of Gettysburg (Bragg 1865a; Angley 1990:8-9; Reaves 1978:44; Wilmington Star, July 19, 1970).

The fort was allowed to deteriorate after the war until the early 1890s, when the Garrison House was restored for use by the United States Signal Service. In 1901 the fort was fully reactivated as the Fort Johnston Engineer Reservation. The buildings and property associated with Fort Johnston were transferred in 1955 to the Department of the Army's Military Ocean Terminal, Sunny Point (MOTSU), which retains ownership. The grounds of Fort Johnston, and the one standing structure, the Garrison House, were placed on the National Register of Historic Places in 1974 (Angley 1990:8-9).

Fort Caswell

On March 2, 1825, by act of the U.S. Congress, funds were appropriated for the construction of a defensive structure on Oak Island to protect the old inlet and the main channel of the Cape Fear River. The first land was likely acquired for the proposed fort on October 12, 1825, when the United States government purchased 450 acres of land for $1,780 from Platt R. Dickinson and I. M. Van Cleaf, and his wife, Mary (Brunswick County Registry, Book I, pages 158-61). The U.S. government eventually acquired in 1825 title to 2,750 acres of land on Oak Island (Hall 1975:237-239; Moore 1968:159-160; Herring and Williams 1983:5,9).

During the following year workshops, storehouses, and other structures were erected on the site, but the actual construction of the fort did not begin until 1828. Bricks used in the construction of the fort were made on the banks of Walden Creek. Major George Blaney of the U.S. Army Corps of Engineers was in charge of construction until his death at Smithville in 1836. Captain Alexander J. Swift succeeded Major Blaney in the final stages of construction. "The fort was an irregular polygon of masonry with a perimeter of the enclosing walls of about 425 yards. The original plan for the fort called for two tiers of guns under bombproof casemates and one tier of guns en barbette for a total of ninety guns. The platforms, however, for that number of guns were never constructed." The original fort was completed on October 20, 1838. The area was officially named Fort Caswell in honor of Richard Caswell, the first governor of North Carolina, by Order No. 32 of the War Department, dated April 18, 1838 (Moore 1968:160; Hall 1975:239; Sprunt 1992:379-380; USACOE 1865c; Sprunt 1896:112, 128; Herring and Williams 1983:21).

The U.S. Engineers advised the Secretary of War in 1838 that the fort was ready for its garrison. A force of fifty men during peacetime and 450 men during war could be maintained at the fort. Nevertheless, Fort Caswell remained without a garrison until just prior to the Civil War. In 1846 a seawall was constructed in front of the fort, and the area behind the wall was filled. By 1860 eighteen guns had been delivered to the fort, although they had not been mounted. When southern forces seized Fort Caswell on April 16, 1861, the masonry was covered with railroad iron on which sand was poured to a depth of 15 feet. The troops also mounted sixteen guns and added six others. Fort Caswell was engaged in little conflict during the Civil War, although it played a crucial role in defending the river entrance, thus allowing blockade-runners to enter the channel. Fighting was generally limited to an occasional artillery duel with the United States blockading fleet. When Fort Fisher, on the opposite side of the river, fell to Union forces in January 1865, Fort Caswell, under the command of Maj. Alexander MacRae, was ordered abandoned and destroyed by Gen. Braxton Bragg. The fort was blown up by the Confederates, at which time the iron rail and sand southern face was destroyed, a portion of the west and north fronts badly shattered, and the wooden buildings destroyed by fire (Hall 1975:237-239; Hall 1980:93; Sprunt 1992:379-380; Powell 1968:178-179; Herring and Williams 1983:13,21,48).

Fort Caswell was entirely remodeled and modernized in the late 1890s. Much of the brickwork from the original fort was salvaged for use elsewhere. About the turn of the century, several new batteries and a new seawall were built at the original Fort Caswell site. In the years preceding World War I, changes at Fort Caswell included the construction of new roads, railways, housing, offices, a hospital, and warehouses. The fort was again used as a coastal defensive installation with a small garrison and an increase in the size of the armament. During World War I Fort Caswell served basically as a training ground for artillery, rather than as a defensive fortification. In 1922 the National Guard fired the last shot from the fort, In late 1925 Fort Caswell was turned over to new owners from Florida, who intended to develop the 2,693-acre property for visitors (Moore 1968:159-160; Hall 1975:237-239; Powell 1968:178-179; Herring and Williams 1983:60,89,93, 101; Wilmington News-Dispatch, December 2, 1925).

A yacht basin at Little pier, or L pier, on the north side of the island was dredged and slips built in October, 1938, and efforts were made to turn the idle fort into a resort area. While that effort fell short of expectations, the fort was soon transformed again into an active military installation. In November 1941 the United States Navy purchased 249 acres inside the seawall and converted the facility into a submarine tracking station, a training center, a communication center, and a naval inshore patrol and section-supply base. A new pier (T-pier) was constructed into the river and another pier (L-pier) was built over the dredged yacht basin. Four years after the end of World War II, a large portion of the Fort Caswell military reservation, which included 249 acres of oceanfront property, was sold to the North Carolina Baptist Convention for $86,000. Presently the facility is used as a Baptist retreat and convention center (Moore 1968:159-160; Hall 1975:237-239; Powell 1968:178-179; Herring and Williams 1983:60,89,93, 101; Wilmington Star, October 8, 1941).

(Fort) Battery Campbell

Fort Campbell, or, as it was often called, Battery Campbell, was located on Oak Island 1,000 yards west of Fort Caswell. Described as an "earthwork of beautiful proportions," the fortification, along with nearby Fort Caswell and Fort Shaw, protected blockade-runners from Union vessels as they entered through the western channel into the Cape Fear River. The battery was said to be "a strong earth-work heavily traversed on the sea-faces, one of which is a bastioned front. . . ." and maintained sixteen guns and two mortars. Tradition holds that Battery Campbell was named for the Campbell family, early inhabitants at Wilmington. The first white child born in Wilmington is thought to have been a member of that family. Prior to the erection of Battery Campbell, no structures or earthworks, except for two range lights-one of which was mounted on a brick foundation and the other movable-were present in the vicinity. Fort Campbell at the close of the war was under the command of Col. Charles H. Simonton. Early in the morning of January 16, 1865, Confederate troops marched out of Forts Campbell and Caswell. Demolition teams destroyed much of the forts, leaving "a mass of shapeless ruins" for the occupying Union forces" (Sprunt 1992:380; Barrett 1963:247, 280; J. R. Randall Papers, SHC; Brockington 1990:6; Herring and Williams 1983:32; ORA, Vol. XLVI, pt. 2, p. 198; ORA I, 9:329).

When the Union forces occupied the abandoned Fort Campbell, a plan was drawn that depicted a heavily armed sea face and western land face. Along with his plan, Admiral David Porter of the U.S. Navy reported, after the attack, that the following armaments were captured at Fort Campbell and the single-gun installation known as Battery Shaw: six 10-inch cannons, six smoothbore 32-pounders, one rifled 32-pounder, one 8-inch cannon, six field pieces, and two mortars (Brockington 1990:6; ORN, I, 11:618-621; USACOE 1865c).

After the war, Fort Campbell lay unused until 1889, when two tracts of the Fort Caswell Military Reservation were selected for construction of a life-saving station on Oak Island. The station was completed and placed in commission by the following year. In 1915 the Life-Saving Service was combined with the Revenue Cutter Service to form the Coast Guard. The old station was removed and a new three-building Coast Guard complex was built about 1915. The current Oak Island Coast Guard Station occupies a portion of the former Confederate earthwork known as Fort Campbell. The present Coast Guard station building is situated on the remnant of the bomb-proof mound of the Confederate Fort Campbell. A sand ridge on which the present lighthouse rests has been determined to be a bastion of the Civil War fort (Brockington 1990:6,10, 14 and 25).

(Fort) Battery Shaw

Fort Shaw, like Fort Campbell, served as an auxiliary battery to Fort Caswell, the main defensive work on Oak Island. Fort Shaw, located between Fort Caswell and Fort Campbell, was a single-gun battery that aided in the protection of Confederate blockade-runners moving in close to shore. When Union forces gained control of the lower Cape Fear, Fort Shaw was destroyed by the evacuating Confederate garrison (Sprunt 1992:380; Barrett 1963:281; Powell 1968:180; USACOE 1865c).

Fort Holmes

Late in the Civil War the major fortification on Smith Island was known as Fort Holmes. Also referred to as Battery Holmes, the fortification was shown on the southwest tip of the island, below Light House Creek. Built by the Confederates in 1863, Fort Holmes, located directly across the mouth of the Cape Fear River from Fort Caswell, was built to assist in the protection of blockade-runners and as a defense to keep the port of Wilmington open. Concerned that the Federals would put ashore a large force of troops on the unprotected island, Gen. William H. C. Whiting, in charge of the defenses of the Cape Fear River, had Fort Holmes constructed. The fortification was described as "a long pile of sand being shaped twenty feet high, many feet thick at the base, and indefinite length." In addition, there were "numerous bastions, casemates, bomb-proof magazines with suitable ramparts and embrasures for light and heavy artillery as well as for infantry," with "mortars and quarters for commisary and quartermaster stores." The massive earthworks, named for Maj. Gen. Theophilus Hunter Holmes, commander of the Confederate Southern Department of Coastal Defenses, was garrisoned by eight companies of the 40th North Carolina regiment and one company of the 3rd Battalion under the command of Col. John J. Hedrick (Stick 1985:43-48; Barrett 1963:281; USACOE 1865f).

On a Union map of Fort Holmes drawn following the fall of Fort Fisher and vicinity, "Battery Holmes" is shown as the main island battery on Bald Head point. Located 1,000 yards to the north, just below Light House Creek, was "Battery No. 4." Forming the third point of a rough triangle were "Battery No. 3" and the smaller one-gun "Battery No. 2," both used to guard the southern beach. The remaining single-gun "Battery No. 1" was located midway between Battery Holmes and Battery No. 2. On the day following the attack on Fort Fisher, the last four companies of the 40th Regiment "evacuated Fort Holmes and Fort Hedrick" after destroying most of the guns and structures." At present extensive remnants of Fort Holmes are still visible on Bald Head, especially in the immediate vicinity of the lighthouse (Stick 1985:43-48; Barrett 1963:281; USACOE 1865f).

Fort Hedrick
Fort Hedrick has been only casually mentioned in the literature, and its existence and location are vague at best. The fort appears to have been built after Fort Holmes was constructed on Smith Island in the vicinity of the lighthouse. Although the precise location of the fort is unknown, it is almost certainly named for John J. Hedrick of Wilmington. Hedrick led a small group of local men in taking possession of Fort Caswell and Fort Johnston several months prior to the opening hostilities of the war. The forts were ordered returned to the United States government, but within a few months were once again taken over by the Confederate forces. John Hedrick served as a Confederate officer and engineer during the entire war and was placed in charge of the construction of several fortifications in the vicinity of the lower Cape Fear, including those at Bald Head. The 40th North Carolina Regiment, formed from a number of independent heavy artillery companies from the surrounding forts, was organized at Bald Head on December 1, 1863, and placed under the command of Colonel Hedrick. The day after Fort Fisher fell, the remaining four companies of the 40th Regiment evacuated Fort Holmes and Fort Hedrick (Stick 1985: 46-48; Herring and Williams 1983:34; South 1960:80-81; ORN I, 9:330).

Fort Anderson/Fort St. Philip
Fort St. Philip was constructed for the defense of Wilmington on the west side of the Cape Fear River over a part of the ruins of Brunswick Town. The fort's distance from the mouth offered no protection for blockade-runners trying to enter the river (Powell 1968:67; Watson 1992:73). Confederate army officer Maj. Thomas Rowland was ordered on March 25, 1862, to the site of Brunswick Town to begin construction of a fort. By the following month Major Rowland reported that the line of entrenchments extending from the battery at the river to Orton Pond, a distance of nearly one mile, were nearly completed. Located along the defensive line were the remains of the colonial church St. Philip. At the major's suggestion, the battery was named Fort St. Philip, in honor of the historic structure. William Lamb, an intelligent young man with a law degree, was sent to command the small earthen battery. Under his supervision, the few weak gun emplacements were built up into the massive defensive earthwork that would later be renamed Fort Anderson. The success of his accomplishment was praised by Gen. William Whiting, who promoted Lamb to the rank of colonel in 1862 and place him in charge of the Cape Fear River defenses at Fort Fisher (Trotter 1989:324-325; Powell 1968:67; South 1960:78).

Fort St. Philip consisted of two five-gun batteries, designated as Battery A and Battery B, with smaller emplacements along the length of the fortification. Battery A was built of sand on the extreme northern edge of Brunswick Point. Battery B, located just to the south, was roughly L-shaped and backed by high buffer mounds. Ordnance within the batteries and along the smaller emplacements consisted of a Whitwork gun, three rifled 32-pounders, 6 smoothbore 32-pounders, and 3 smoothbore 24-pounders. Wharves were constructed from the fort into the river for the unloading of supplies. Later, when the name of the fortification was changed to Fort Anderson, it was described as "a beautiful and substantial structure of turf" (South 1960:79; Barrett 1963:247; Randall Papers, SHC).

For most of the war the garrison at Fort Anderson saw no action, and duty at the fort was routine. During 1864, after reports of yellow fever in Bermuda and Nassau became prevalent, Fort Anderson was assigned additional duty as a quarantine fort to prevent the introduction of the disease into Wilmington. All suspect blockade-runners were detained and unloaded at the fort. When a few cases of yellow fever were discovered at Fort Anderson, the lateness of the fall season forestalled the appearance of the disease in epidemic proportions (Watson 1992:87; Hall 1980:93).

When Federal troops began the assault on Fort Fisher in late December 1864, the imminent threat of attack upon the small garrison at Fort Anderson was a very real possibility. The Confederate victory at Fort Fisher in December was short-lived, as the Federal troops returned to attack the fort the following month with devastating results for the South. When Fort Fisher fell to the superior Federal forces, the other Confederate fortifications at the mouth of the Cape Fear River were abandoned. Most of the troops that once occupied the deserted and now destroyed forts moved toward the safety of Fort Anderson, farther up the river. The garrison of 900 men at Fort Anderson under Colonel Hedrick and the displaced troops from the other forts knew it was only a matter of time before an attack came upon their positions. Fort Anderson was the last major defensive position between the attacking Federal troops and the inhabitants of Wilmington (Sprunt 1992:302,500; South 1960:81-89; Watson 1992:103).

It took time for Admiral David Porter to get his invading fleet of twenty ships over the bar at the mouth of the Cape Fear and prepare an attack on Fort Anderson. Before the major advance came, some shots were exchanged between the fort and the Federal vessels. One of the pre-attack maneuvers Admiral Porter employed was a "Bogus Monitor" built from an old scow, canvas, and barrel staves and floated past the fort to draw the enemy cannon fire away from his ships. The anticipated assault finally came on February 17, 1865, when the enemy attacked the fort from the rear with about 10,000 infantry, while Admiral Porter, with a fleet of thirteen gunboats, his flagship, two blockaders, three schooners, and the single-turreted monitor *Montauk*, shelled the fort, demolishing the Confederate guns. Prior to the final blow on the defenses of the Cape Fear River, the Confederates placed floating torpedoes in front of Fort Anderson. The torpedoes claimed one victim, the Union transport *Thorn*, just after the evacuation. The remainder of the torpedoes were safely removed from the river over the following months. In the face of overwhelming strength, the garrison at Fort Anderson withdrew on the following day and fell back beyond Town Creek, destroying the bridges ahead of the advancing army. The Confederates made one last stand at Town Creek but were again forced to fall back, this time to Wilmington. Four days later, Wilmington became the last major southern port occupied by Federal forces (Sprunt 1992:302, 500; South 1960:81-89; Watson 1992:103).

Town Creek Battery

After evacuating Fort Anderson, the rebel forces retired to "a strong line of works" south of Old Town Creek for a last effort to stop the advancing Union forces. Little information is known about the design of those earthworks (Sprunt 1992:497; Honeycutt 1963:194; Massengill 1977:fig 3).

Nine Mile Battery

South of Fort Meares, across the river from Town Creek, the Confederates constructed Nine Mile Battery. Little information is available about this battery (Massengill 1977:fig.3; Honeycutt 1963:79).

Battery Lamb

Fort Lamb or Battery Lamb was constructed in 1863 as part of the overall Cape Fear River defense system. Named for Col. William Lamb of Fort Fisher, the small battery was located midway between Fort Anderson and Fort Johnston on what was then Reaves Point (and today known as Sunny Point). The Confederate work was strategically placed to observe any vessel that passed through New Inlet. The eight gun emplacements constructed at the battery may have mounted smoothbore 32-pounder cannons. Battery Lamb was apparently never called upon to play any defensive role until after the fall of Fort Fisher. After occupying the abandoned forts at the mouth of the Cape Fear, Union troops moved northward along the west side of the river. Skirmishing in the vicinity of Reaves Point occurred before the Confederate garrison at Battery Lamb was compelled to fall back to the safety of Fort Anderson ahead of the advancing enemy (Angley 1983:24-25; Powell 1968:179; CSCE 1865a and 1865b; Sprunt 1896:111).

Zeke's Island Battery

During late 1862 or early 1863 Capt. John J. Hedrick of the Confederate Engineer Corps was ordered to Zeke's Island to construct a battery for the defense of New Inlet. A Union map drawn in 1864 shows the battery on Zeke's Island as a crescent-shaped fortification centrally located along the northern shoreline of the island. Work was still progressing on the two-gun battery in May 1863. Shortly thereafter, the battery was "washed away by the sea." Little else is known about the design of this fortification. Hedrick was soon afterward appointed major of engineers and detached from his company and sent to Fort Fisher under orders to enlarge the fortifications there (ORN I, 9:12; Lamb 1896:350; Wilmington Messenger, June 26, 1894; Wilmington Star, July 22, 1881; USACOE 1864).

Fort Fisher

Of the Confederate fortifications constructed along the entrances to the Cape Fear River, the largest was known as Fort Fisher **(Figure 17)**. Located on the tip of Confederate Point (now Federal Point), the fort was bounded on the west by the Cape Fear River, on the east by the Atlantic Ocean, and on the south by New Inlet. The strategic placement of the fort at the southern end of the peninsula enabled it to guard both New Inlet and the river approach to Wilmington. Construction began on Fort Fisher in April 1861 under the direction of Capt. Charles P. Bolles. Captain Bolles was able to begin construction of only two sand batteries during his two-week assignment before he was transferred and replaced by Capt. William DeRosset. After additional construction, Captain DeRosset in May declared the earthworks complete, and two 24-pounder cannons were mounted. The most southern of the earthworks at that time was then named Battery Bolles. Within three weeks Captain DeRosset was promoted for his accomplishment and also transferred to a new assignment (Powell 1968:179; Wilmington Star, July 22, 1881; Fort Fisher Master Plan 1974:54; USACOE 1865a, b, g).

Construction and enlargement of the fort continued during 1862 under the command of Maj. John J. Hedrick. In addition to more sand batteries, a casemate battery of railroad iron and palmetto logs was constructed. It was located near the riverbank a short distance above Battery Bolles. The fortification had by the summer of 1862 established its basic shape of an L and consisted of a quadrilateral fieldwork known as Fort Fisher, a land battery defense near the river, and four sea defense batteries. The fort mounted seventeen guns at that time. Upon completion, the fortification was named for Col. Charles F. Fisher of Salisbury, who had been killed at the Battle of First Manassas while commanding the Sixth North Carolina Regiment (Powell 1968:179; Sprunt 1992:281; Massengill 1977:13-14; Fort Fisher Master Plan 1974:54; USACOE 1865a, b, g).

On July 4, 1862, Fort Fisher received a new commander: Col. William Lamb of Norfolk, Virginia. Lamb determined that the fort was under-equipped in strength and size to fulfill the vital defensive role required for the protection of blockade-runners entering New Inlet and protecting the port of Wilmington. He immediately set out to enlarge the fort and build "a work of such magnitude that it could withstand the heaviest fire of any guns in the American Navy." During the next 2½ years, Lamb redesigned and constructed the "new" Fort Fisher, using 500 Negro laborers and his garrison. The expanded fort was modeled on the "Malakoff Tower," a Russian redoubt at Sebastopol that withstood a combined land and naval attack by the superior British and French forces during the Crimean War. Fort Fisher was termed the "Malakoff Tower of the South" (Fort Fisher Master Plan 1974:54; Sprunt 1992: 381).

The northern land face of the fort commenced approximately 100 feet from the east bank of the Cape Fear river at a half bastion, originally Shepperd's Battery, and then ran eastward across the peninsula for a distance of 682 yards. At that point the curtain

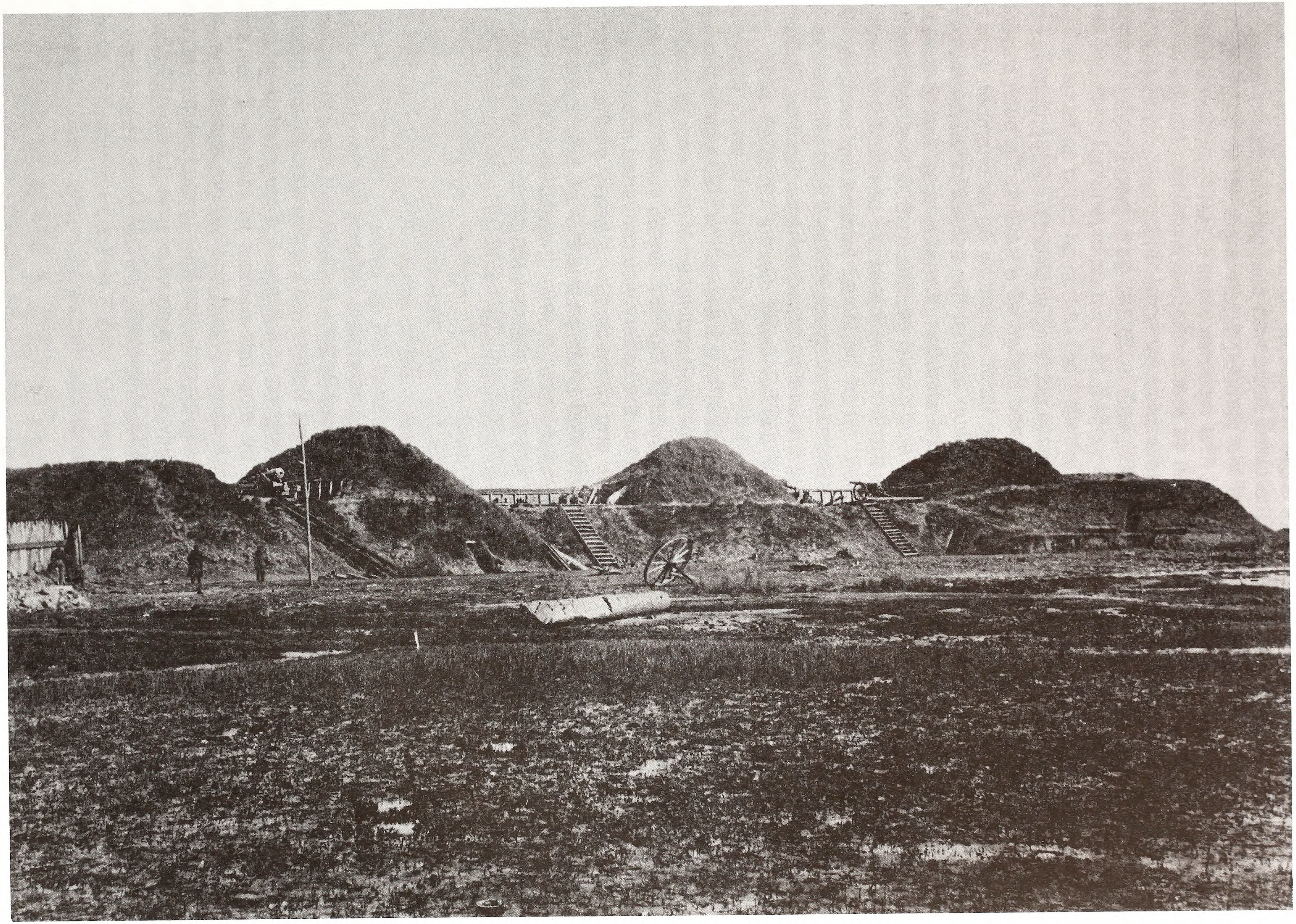


Figure 17. Civil War Photograph showing Fort Fisher.

joined a bastion and turned at a right angle to continue southward along the sea beach toward New Inlet for 1,898 yards. The outer slope was sodded with marsh grass, 20 feet high from the berm to the top of the parapet, at an angle of 45 degrees. The parapet was not less than 25 feet thick. The revetment was 5 feet 9 inches high from the floor of the raised gun chambers and 12 feet or more from the interior plane. The guns were all mounted en barbette on Columbiad carriages, there being no casemated guns in the fort (Lamb 1896:349-354, 385; Hall 1975:240-241; Sprunt 1992:381-383; ORN I, 12:35).

Along the northern face were seventeen heavy gun emplacements, each protected by a mound of earth 12 feet or greater in height and known as a traverse. In each traverse was an alternate magazine or bombproof, the latter vented by an air chamber. Also on the northern face, and as an added protection against the assault of a land force, a palisade of sharpened stakes 9 feet high extended from the river edge east to the sea. Also extending across the peninsula at a distance of 500 to 600 feet outside the palisade was a line of torpedoes. Where the land face joined the sea face there was a large emplacement known as "The Pulpit," which projected beyond the parapets. On the sea face were twenty-seven additional mounted guns. Within the fort to the rear of the land face were three mortars, bringing the total mounted armament of Fort Fisher to forty-seven guns (Lamb 1896:349-354; Hall 1975:240-241; Sprunt 1992:381-383).

From the Pulpit and northeast bastion the sea face extented for 100 yards and was constructed similar to the massive nature of the land face. At the end, a crescent battery intended for four guns was built of palmetto logs and tarred sandbags and sand revetted with sod. After the logs had decayed, the battery was converted into a hospital bombproof. Extending along the sea face and connected by a heavy earthen infantry curtain was a series of batteries that extended for three-quarters of a mile along the sea. These batteries had heavy traverses but were not more than 10 to 12 feet high to the top of the parapets. Farther along, where the channel ran close to the beach, a mound battery was erected (Lamb 1896:349-354; Hall 1975:240-241; Sprunt 1992:381-383).

Mound Battery

Forming the southern point of the sea face, and used as a defense for New Inlet, was a large gun emplacement known as Lamb's Mound Battery. Built 60 feet high, the battery was armed with two long-range guns. Mound Battery was connected to the battery north of it by a light infantry curtain. The distinct conical shape and height of the battery made for "an excellent landmark" used by blockade-runners to identify it for safe passage into New Inlet. "In clear weather, it showed plain and distinct against the sky at night." On foggy or cloudy nights a light was placed upon the mound that marked the entrance to the inlet, but it could be lit for only a brief amount of time (Lamb 1896:352-353; Hall 1975: 240-241; Sprunt 1992:381-383; Wilkinson, 1877:152).

Battery Buchanan

Forming the final bastion on the end of Confederate Point was Battery Buchanan. The totally separate battery was a two-tiered elliptical earthwork, approximately 43 feet in height. Four mounted guns commanded both New Inlet and the approach by land. Just after it was completed, it was garrisoned by a detachment from the Confederate States Navy. Nearby, a wharf for large steamers was constructed, although the main docking facility for Fort Fisher was located at Craig's Landing just north of the fort. In the event that the main fort should be overrun, Battery Buchanan could be used as a last holdout until evacuation could be conducted from the wharf (Lamb 1896:353; Sprunt 1992:381-383; Trotter 1989:328; USACOE 1865b,g).

Attacks on Fort Fisher

Federal forces began plans for a joint army-navy attack on Fort Fisher during the fall of 1864. Shortly after the southern forces learned on October 24, 1864, of the impending attack, Confederate general Braxton Bragg assumed command of the defenses of Wilmington. He superseded Gen. W. H. C. Whiting, who remained his second-in-command. The Confederates assembled 1,430 men at Fort Fisher in preparation for the assault. An additional force of 6,000 veterans from Lee's army under the command of Maj. Gen. Robert F. Hoke were located 5 miles up the river at Sugar Loaf. The expected Federal fleet finally arrived off Fort Fisher on the morning of December 20 under the command of Admiral David Porter. Aboard the fifty-six warships that gathered off New Inlet was an army unit of 6,500 infantrymen under the command of Maj. Gen. Benjamin F. Butler (Lamb 1896:357-358; Fort Fisher Master Plan 1974:56-57; Sprunt 1992:493).

The first attempt the Federals made to take the fort began on the night of December 23, when the powder ship *Louisiana*, with more than 215 tons of powder, was exploded within 200 yards of the fort. It was hoped that the blast from the vessel would create a gap in the earthen defense. After a lengthy delay, however, the ship finally exploded at 1:52 A.M. doing no damage. For two days, December 24 and 25, Fort Fisher came under a heavy bombardment that did little destruction. During the afternoon on Christmas day, 2,000 troops under General Butler made an unopposed landing at Battery Anderson, 3 miles up the coast. Unable to advance upon the fort because of artillery fire, General Butler withdrew his troops. On December 27 the Federal vessels sailed north along the coast to Beaufort, North Carolina, having been unsuccessful in their initial effort to capture Fort Fisher (Lamb 1896:357-358,361,366; Fort Fisher Mater Plan 1974:56-57; Sprunt 1992:493; Powell 1968:179).

The Confederates were jubilant at having withstood the land attack of General Butler and the naval bombardment from Admiral Porter's ships. General Bragg, not expecting a renewed attack from the Union forces, ordered Hoke's 6,000 troops into Wilmington in preparation for a move against occupied New Bern. Disappointed with the failure of General Butler to take Fort Fisher, General U. S. Grant replaced Butler with Maj. Gen. Alfred H. Terry and ordered an additional 1,500 troops to ready themselves for a second attack on the fortification within the following weeks. The Federal fleet, then numbering fifty-eight warships mounting 627 guns, reassembled at Beaufort, and proceeded back to Fort Fisher. On the night of January, 12, 1865, the Federal fleet reappeared off Confederate Point. The following morning, the second attack on Fort Fisher commenced when the five ironclads began bombarding the land defenses. The rest of the fleet, which joined in the bombardment of the fort that continued day and night from the thirteenth to the fifteenth. More than 50,000 shells and roundshot were directed at Fort Fisher during this period-the heaviest shelling of any fort during the war (Lamb 1896:371-377, 383; Fort Fisher Master Plan 1974:56-57; Sprunt 1992:493-494; Trotter 1989:400).

On January 14 Federal troops again landed above Fort Fisher, in the vicinity of Battery Anderson. There the infantry entrenched from the sea to the river and were supported by light artillery brought ashore. To prevent Gen. Braxton Bragg from arriving from Wilmington to enforce the fort, 4,700 men were placed along the entrenchment. The remaining 3,300 men under the command of General Terry moved against Fort Fisher. At the pre-arranged hour of 3:00 P.M. on January 15, the assault began under a covering fire from the Federal vessels. In an effort to draw the fire away from General Terry's troops, 400 marines and 1,600 sailors, landed near the fort the evening before and, armed with pistols and cutlasses, attacked the northeast bastion on the beach side. The main attack by General Terry and his men came along the river at the end battery. During the ensuing battle, General Whiting was mortally wounded and Colonel Lamb severely wounded. The Confederate survivors of the battle fled to Battery Buchanan in hopes of finding boats as a means of escape. The assault finally ended at 10 o'clock on the evening of January 15 when the last of the Confederate defenders, finding boats no longer there, could do nothing but surrender. Federal casualties had been costly, with nearly 1,300 men lost, but the expedition had finally been successful. The "last major stronghold of the confederacy" had fallen. Blockade-runners could no longer enter the safety of the Cape Fear River to unload at Wilmington, and in the following month even the city would be occupied by Union forces (Lamb 1896:371-377; Fort Fisher Master Plan 1974:57-58; Sprunt 1992:493-494; Trotter 1989:370,396).

Fort Fisher after the Battle

Once in the hands of the Federals, Fort Fisher was still not spared from further destruction. On the morning of January 16, a group of drunken United States sailors in search of loot and souvenirs carried a torch into the fort's powder magazine. This, the largest of the reserve magazines, contained 13,000 pounds of powder captured along with the fort. The explosion that followed killed or injured another 300 Union men and destroyed a section of the fortification (Lamb 1896:383; Trotter 1989:401).

After the Federal forces occupied Fort Fisher, they began a series of alterations to the earthworks. Apparently the federal government adopted the policy in order to prevent the Confederates from attempting to retake the fort. One individual with the Union navy wrote in February 1865 the only known account of the fort's alteration. "The Engineer

Corps are at work now on Fort Fisher reducing its size and increasing its strength at the same time. Since the capture hundreds of men have been constantly employed dragging, pulling down, erecting and intrenching, and the appearance of the work is entirely changed" (Rogers 1928:115). Erosional forces of wind and rain and the number of relic hunters that searched the weathered ruins after the war likewise caused changes in the historic earthworks. In late 1896 Fort Fisher was once again considered as a defensive installation when the threat of attack from the Spanish Caribbean seemed possible. In preparation for what would later be the Spanish-American War in 1898, the fort was to be "resurrected and armed in the earliest possible time." Assigned by the United States government to evaluate the effort were John M. Fisher and two other men from Philadelphia. Little if any changes are known to have been made at the fort during that time. In 1906 Fort Fisher was considered as a potential national park. Although such a plan never materialized, the underlying public interest in preserving the fort had been established. Until World War II little modification was undertaken at the fort (Massengill 1977:36; Wilmington Evening Dispatch, December 8, 1896; Wilmington Dispatch, April 16, 1906).

Fort Fisher was reactivated as a military base during World War II as part of the Atlantic coastal defensive network. The fort served as part of Camp Davis, a training center located at Holly Ridge. The Fort Fisher installation served mainly for the protection of Federal Point and Smith Island by detecting enemy submarine activity along the coast. A military battery and radar installation were built at Fort Fisher in the summer and fall of 1941. The Fort Fisher installation "called for 45 frame buildings and over three hundred tent floors for approximately 2,500 troops from Camp Davis. The army used the site to practice with 3-inch guns, 37-millimeter pieces, and 155-millimeter seacoast guns. United States highway 421 divided the practice center into two sections-to the east was the firing point proper and to the west were the utilities and living quarters." Subsequently added to Fort Fisher was an airstrip that cut across and destroyed part of the land face. Over half of Battery Buchanan was carried off during World War II for the construction of the bombproofs that protected the ammunition bunkers. Additional batteries were constructed along the ocean front as far north as Carolina Beach (Massengill 1977:36; Wilmington Star-News, July 13, 1941; Powell 1968:179; Fort Fisher Master Plan 1974:3; Honeycutt 1967:1).

Immediately following the end of the war, many of the facilities were removed or destroyed. The federal government disposed of numerous buildings, including a 350-bed hospital, under the directions of the U.S. District Engineer and the Real Estate Division of the War Department. Neither the state of North Carolina nor New Hanover County could find a practical use for the structures inasmuch as many were hastily constructed and were not fireproof. Other remaining structures were required to be removed in the 1950s when the United States military purchased a large expanse of land on the west side of the river at Sunny Point for the location of an ammunition loading terminal, known as the Military Ocean Terminal Sunny Point (MOTSU). Nearly all of the lower Federal Point area, including Fort Fisher, fell within the military installation safety buffer zone (Wilmington Evening Post, January 16, 20, 1945; Honeycutt,1967:1).

In 1932 New Hanover County purchased one acre of the site from the government and donated it to the state. That same year the United Daughters of the Confederacy erected a monument at Battle Acre to commemorate the Civil War fort. In the late 1950s local and state forces joined together to revive the idea of restoring Fort Fisher. A twenty-year-old movement by local citizens to develop Fort Fisher as a park or state historic site was again considered. With approval and backing for a state historic site, work commenced during the summer of 1960 on a 180-acre tract held by the state of North Carolina under lease from the U.S. government. A pavilion was constructed at the state site in the fall of 1961. Underbrush was cleared from the six mounds and seven gun emplacements within the leased property. Four years later a museum was built for interpretation of the Civil War fort. In 1962 Fort Fisher became the first property in North Carolina recognized by the Federal Government as a National Historic Landmark—its highest designation for historic properties. The fort is also listed on the National Register of Historic Places (Fort Fisher Master Plan 1974:3-4; Powell 1968:179).

During the century since the earthen fort was constructed, sea erosion has obliterated the corner bastion and much of the sea face. Today only about one-half of the land face and Battery Buchanan remain. Serious erosion problems occurred at Federal Point after the state removed coquina rock from the shore just north of the earthworks during the 1920s for use as road construction fill in the building of Highway 421. This loss forced the state in the early 1950s to realign the very same highway that had been built with the use of the coquina rock and to place a small revetment in front of Battle Acre. By 1968 approximately 200 yards of sea front has been lost to wave action. As a means of preventing any further erosion of what remained of Fort Fisher, the North Carolina Highway Department added a second stone revetment during 1969 and 1970 along the beachfront (Fort Fisher Master Plan 1974:3-4).

The latest effort in the fight to protect Fort Fisher and Federal Point from being claimed by the ocean is the current project to construct a 3,040-foot seawall. Construction of the seawall by Misener Marine Construction, Inc. began in June 1995 and is expected to be completed in one year. The project, a result of a partnership between the Corps of Engineers and the State of North Carolina, will include multi-layered rubble revetment with tie-ins to natural ground on the north and south ends of the site. Along Battle Acre the revetment will overlay most of the existing rubble. Sand will be placed behind the revetment to form a gentle slope from the crest of the revetment to the existing ground. The seawall is expected to halt ocean side erosion of Federal Point for the next fifty years (Fort Fisher 1995).

Fort Strong (Fort Stokes, Fort Davis)
On the east shore of the Cape Fear River, across from the mouth of the Brunswick River, at least four forts and a battery were built by the Confederates for the defense of Wilmington. Fort Strong, the closest to the city, is shown on Confederate Engineers maps (1863) of the obstructions and forts across from the Brunswick River, and in 1864, of the Wilmington vicinity. On a much larger-scale map of the vicinity, apparently drawn later in 1864 by the engineers and showing the approaches to Wilmington, the name of the fort appears as Fort Stokes. On a copy of the obstructions map dated February 7, 1865, that accompanied a report by General Braxton Bragg after the fall of Fort Fisher, the defensive structure was labeled Fort Davis and mounted five guns (CSCE 1863a, 1864a,c, 1865a,b; USCS 1864; Trotter 1989:324; Honeycutt 1963:79).

Information on the construction of Fort Strong is lacking, although it must have been built in late 1861 or early 1862. By May 1862 a Confederate company was mustered into service, placed under the command of Capt. Charles Ellis, and assigned to Fort Strong. Captain Ellis remained twelve months at this location before he performed garrison duty at Wilmington and later Fort Campbell at the mouth of the river (Wilmington Star, August 15, 1873). Fort Strong was considered the most formidable of the four closely grouped forts and was likely casemated. A "casemated battery" is indicated on an 1864 United States Coast Survey map in the approximate location of Fort Strong (ORN I, 12:36).

Fort Anderson on the opposite side of the river at old Brunswick Town was abandoned on February 18. Four days later, Wilmington, Fort Strong, and the remaining Cape Fear River defenses were also evacuated. An account of the capture of Fort Anderson and the other forts was given by surgeon Stephen Bartlett while stationed aboard a Union vessel in the river. "On the opposite side of the River [from Fort Anderson] is another Fort and it is reported that our land force took it yesterday at the same time we were shelling it" (Murray and Bartlett 1956:74). Two days after Fort Anderson fell, Bartlett wrote, while his vessel lay "Six miles from Wilmington In front of Iron clad Battery," that "last night the enemy evacuated their last strong hold. Their works were well casemated and guns were regularly worked." Surgeon Bartlett may have been referring to Fort Strong when he stated that "the last Fort captured is called Fort Iron Island" (Murray and Bartlett 1956:79-81; USCS 1864: Lossing 1868:492). When Stephen Bartlett wrote home about the fall of Wilmington, he expressed a wish to show his brother, Walter, all the sights: "I would take him down to Fort Strong. There he would see the heavy guns, some of them dismantled. He would see the ground torn up and houses completely riddled by our shot and shell. He would see Rebel graves and in the magazines he would still find stacks of rebel ammunition which has not been removed" (Murray and Bartlett 1956:83).

Fort French (Fort Lee)

Located slightly downriver from Fort Strong and just below Mount Tirzah was Fort French, as it was labeled on two maps done in 1863 by the Confederate engineers. The fort is illustrated and labeled as "iron clad with T-iron." By 1864 the two-gun fort had been named Fort Lee and placed under the command of Col. P. C. Gaillard. Fort French was situated on the east shore of the Cape Fear River directly across from the northern tip of Clark's Island. From that position the guns of the fort protected a line of floating chain obstructions that extended from the northern tip of Clark's Island to just in front of Fort French. Vessels passed through the obstructions by means of a floating gate directly in front of the fort. When Fort Fisher fell to Union forces on January 15, 1865, the Confederates sank the old blockade-runner *North Heath* in the channel next to the floating obstructions to give Wilmington added protection from advancing enemy vessels (Wilmington Star, February 27, 1868; New York Herald, January 18, 1865; Trotter 1989:324; Honeycutt 1963:79; CSCE 1863a,b, 1864a,c 1865a,b).

Cannoneer Battery

On Confederate maps of 1863 and 1864 a Cannoneer Battery is shown 200 yards north of Fort French. The battery is depicted as crescent-shaped and constructed to support two guns. The battery is oriented to protect the river obstructions. No further data are known about the Cannoneer Battery (CSCE 1863a,b; 1864a).

Fort Meares (Fort Campbell)

Fort Meares was located across from the mouth of the Brunswick River approximately 1,000 yards south of Fort French. After 1863 the fort appears on Confederate maps as Fort Campbell (not to be confused with Fort Campbell on Oak Island) and armed with at least eight guns. A line of sawyers blocked the main channel directly in front of the fort. On the 1865 map of the defenses submitted by Gen. Braxton Bragg, chevaux de frise and two wrecks were noted as having been added to the obstructions. The two vessels indicated were the steamers *Arctic* and *Yadkin* both sunk in December 1864, just prior to the fall of Wilmington. The obstructions were removed in 1875 by the U.S. Engineers, and Fort Campbell is indicated in "Ruins" the following year (Trotter 1989:324; Honeycutt 1963:79; CSCE 1863a,b; 1864a,c; 1865a,b; USACOE 1876b).

Fort Hill (Fort Meares)

The most southern of the four Confederate forts constructed near the confluence of the Brunswick and Cape Fear Rivers was Fort Hill, located approximately 450 yards south of Fort Campbell. The earthen fortification was built farther back then the other forts, some 100 yards from the shoreline. Maps drawn by the southern engineers after 1863 indicate the four-gun defense as Fort Meares. Jetties that extended from both sides of the river to near mid-channel directed all vessels to pass directly in front of Fort Hill.

The fort was indicated as being in ruins by 1876 (Trotter 1989:324; Honeycutt 1963:79; CSCE 1863a,b; 1864a,c; 1865a,b; USACOE 1876b).

Wilmington defenses

Within the city of Wilmington, several earthen batteries were constructed as early as 1862 in anticipation of a Federal attack. Most of the batteries were built in the southern section of the city, near the river or west of the city near Green's Millpond. At least one battery was located near the northeastern shoreline of the river above Wilmington. In addition to the defensive earthwork batteries, a series of ponds and ditches was dug; the ponds and ditches surrounded the entrenchments, into which water could be poured through a series of sluices and gates (Watson 1992:73; CSCE 1863b).

Wilmington's defenses after 1863 were described by C. S. Powell, a soldier with the Tenth North Carolina Battalion, several years after the war. Powell gives the following description:

> The defenses around the city consisted of a system of ponds, dams and earthworks extending in a cresent half around the northeastern side of the city, then from North East river to Smith's Creek and across a sand ridge by the present beautiful Greenfield Park to the Cape Fear River a mile or more below the city, and a mile from the city all around. There were dams with water guages at each of these ponds, and it is said to have been a skillful piece of engineering. In the city were two batteries of ten-inch Columbian cannons with magazines of ammunition. One battery was on a bluff at the upper side of the city, and the other on a bluff near the southern suburbs. These batteries and chains of dams along with several government sheds on the side of the river in front of the city, were the principal points to protect the Tenth Battalion. These sheds at times were filled with immense quantities of goods and government supplies landed there by the numerous fleets of blockade runners then coming into port; just as eager to get our cotton as we were to get the necessary goods brought for exchange. There were ten or twelve posts to be guarded which required a force of about forty men daily. These were commanded by a commissioned officer, and four or five non-commissioned officers . . . (Wilmington Star, September 9, 1917).

On February 22, 1865, the town of Wilmington was occupied by Union forces and the defensive positions within the town were evacuated by Southern troops during the night. Most of the earthen fortifications within and near the city were destroyed in the period of reconstruction and growth that followed the war.

Lighthouses, Beacons, and Lightships

As Brunswick and later Southport and Wilmington became major communities for trade along the Cape Fear River, the number of vessels that set sail on the river increased. Perhaps the greatest threat to ships was the possibility of running aground on ocean or river shoals. One measure taken to reduce the hazard was the placement of navigation lights along the river and its entrances **(Figures 18,19,20,21)**. Lighthouses were first used at the entrances to the Cape Fear River with the construction of the Bald Head Lighthouse and Federal Point Lighthouse near the turn of the nineteenth century.

In 1848 the U.S. Congress appropriated money for the placement of several other beacons, lighthouses, and a lightship on the Cape Fear River (Stick 1980:36-37). This series of navigational markers included lighthouses at Orton Point, Campbell Island, and two at Oak Island; beacons at Price's Creek and the Upper Jettee at Wilmington; and a lightship at Horseshoe Shoal. Although modern terminology makes little distinction between "beacon" and "lighthouse," historically the terms were generally applied according to the size and cost of the light. Beacon, the older of the two terms, was used to describe smaller lighthouses (Stick 1980:37).

In 1861, by order of Gov. John W. Ellis, the Confederates extinguished all lights on the lower Cape Fear. The lights were either destroyed, rendered inoperative, or removed to places of safety. These included the Bald Head and Federal Point lighthouses on the coast, the Horseshoe Shoal lightboat, and the smaller lighthouses at Price's Creek, Orton Point, Campbell Island, and the Upper Jettee on the Cape Fear River (Stick 1980:57; Wilkinson 1877:197). Some beacons were lighted only briefly to assist a blockade-runner into the river, then immediately extinguished once the vessel had safely cleared the hazards. Each entering blockade-runner was required to provide a barrel of sperm oil to be used in the operation of the navigation lights (Wilkinson 1877:197-198). Several of the lights resumed operation following the war. A description on each of the twelve lighthouse or lightship locations is given below.

Bald Head/Cape Fear Lighthouse
Oak Island Lighthouse
Oak Island Beacons
Federal Point Lighthouses
Price's Creek Beacons
Orton Point Light
Campbell's Island Light
Upper Jettee Range Lights
Cape Fear River Lights
Horseshoe Shoal Lightboat
Horseshoe Shoal Lighthouse
Frying Pan Shoals Lightships

Bald Head (Cape Fear) Lighthouses

The U.S. Lighthouse Board decided that the first lighthouse in North Carolina would be placed on Smith Island at the mouth of the Cape Fear River. Construction began about 1789 and was completed in 1796 on ten acres of land acquired by the government from Benjamin Smith, who then owned the island. The General Assembly raised funds for the construction of the new light in 1784 by placing an additional six pence per ton duty on all vessels entering the Cape Fear River (Stick 1980:11-12). The editor of a Wilmington newspaper described the original lighthouse:

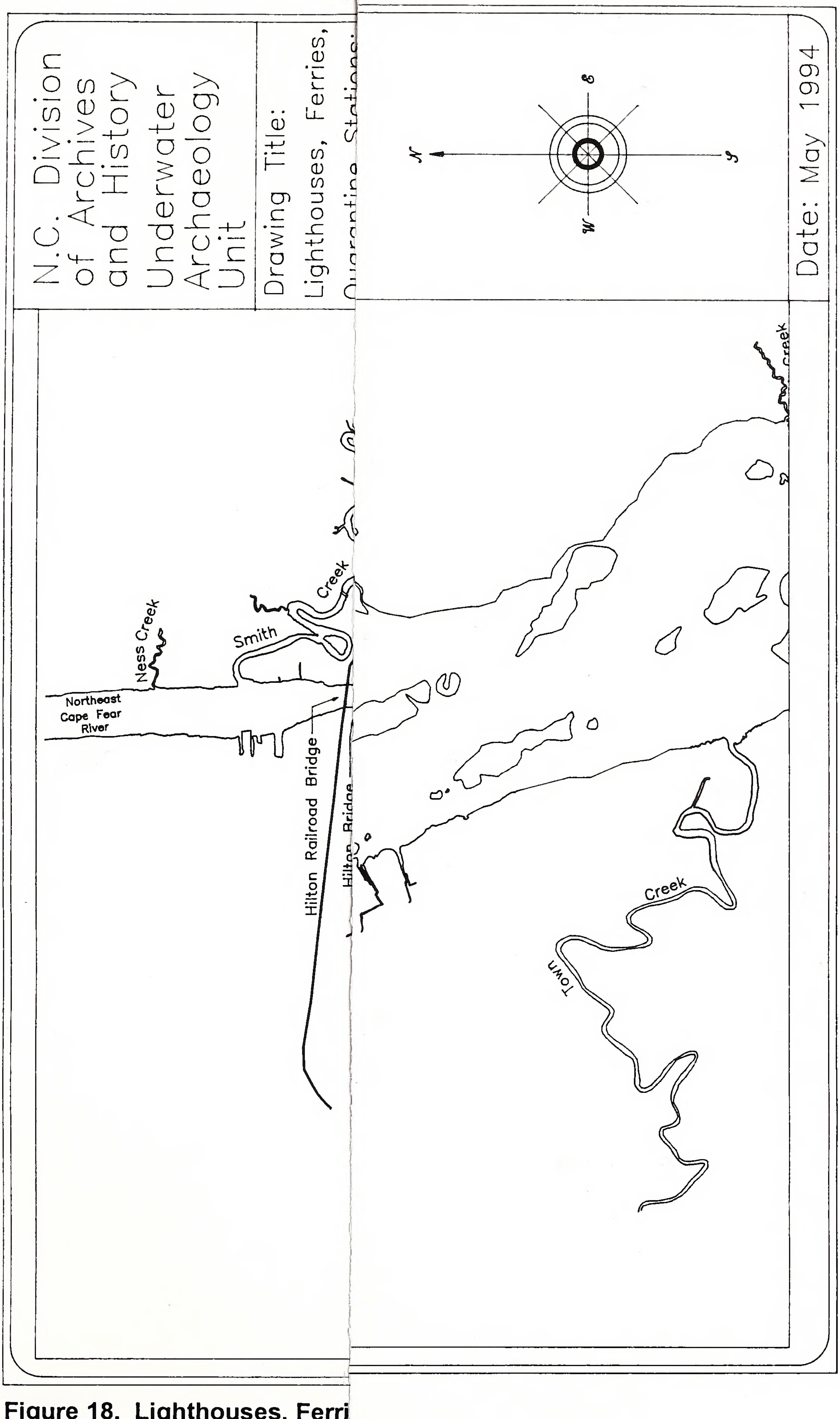
> Cape Fear Lighthouse is situated near Bald Head, a noted bluff on Cape Fear island at the mouth of Cape Fear river, on which river is built the town of Wilmington, N.C. The iron lantern is ten feet nine inches in diameter, and about fifteen feet nine inches in height from the floor to the top of the roof. It was first lighted on the night of 23rd December 1794. The light bears West North West from the extremity of the Frying Pan Shoals, distance eight leagues (Wilmington Gazette, July 10, 1795).

As a result of being constructed too close to the ocean, waves undermined the first Bald Head lighthouse causing it to eventually collapse into the sea. In 1810 Secretary of the Treasury Albert Gallatin authorized the expenditure of two thousand dollars "in order to secure the lighthouse at Bald Head against the encroachments of the sea." This measure of installing "two double rows of poles driven and filled between with brush" proved ineffectual. In July 1813 the collector of customs at Wilmington issued a warning to mariners: "In consequence of the encroachment of the sea it has become necessary to pull down the lighthouse on Bald Head" (Stick 1985:33-34; Herring 1967:79).

Construction of a second lighthouse, known as "Old Baldy," occurred in 1817 **(Figure 22)**. The previous year Congress had to reappropriate funds for the lighthouse originally authorized for the project three years earlier. The second lighthouse was octagonal in shape, similar to the original, and carefully and exactly described in every detail prior to construction. The U.S. Lighthouse Board chose as the location of the second lighthouse a high bluff, a half-mile north of the first site on the extreme southwest point of the island, and well back from the river. In July 1834, Capt. Henry D. Hunter of the Revenue Cutter *Taney* reported that the Bald Head lighthouse had "15 lamps which were 109 feet above the level of the sea and showed a fixed light" (Stick 1985:33-38). When New Inlet became the primary outlet for the Cape Fear River, the Bald Head lighthouse was relegated to a secondary status.

With the closing of New Inlet in 1881 more vessels were again using the river channel between Oak Island and Smith Island. In late 1879 the U.S. Lighthouse Board reactivated the Bald Head light. A construction crew installed a new lighting mechanism in Old Baldy in 1883, as well as the addition of a two-story house for the keeper. The closing of New Inlet had the desired effect of increasing water flow down the Cape Fear River but also caused erosion at Bald Head near the lighthouse. To remedy the problem the Corps of Engineers constructed a jetty 150 feet in length, later extended to 200 feet. The measure proved quite successful and prevented the second Bald Head lighthouse from also falling into the sea (Stick 1985:71; Wilmington Weekly Star, November 14, 1879).

Navigators at the outer edges of the Frying Pan shoals found it difficult to observe the light at Bald Head. It was therefore proposed that Bald Head light be elevated to 150 feet and a new first-order lens be installed to aid ships entering the river, but this improvement measure was soon discarded in favor of a different plan. Instead of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Date: May 1994
Ness Creek
Northeast Cape Fear River
Smith Creek
Creek
Hilton Railroad Bridge
Hilton Bridge
Town Creek

Figure 18. Lighthouses, Ferri
Smith Creek to To

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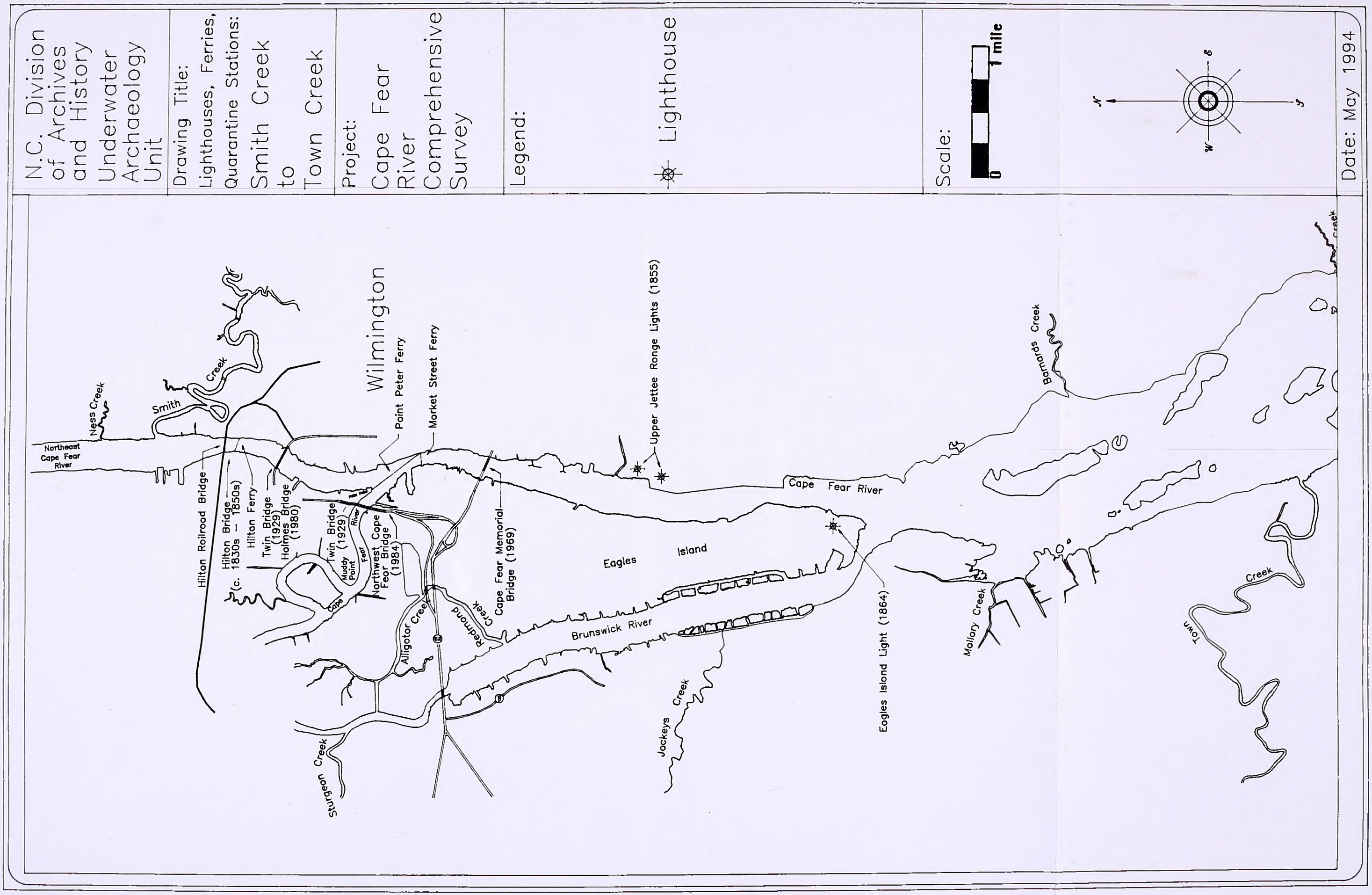
N.C. Division of Archives and History
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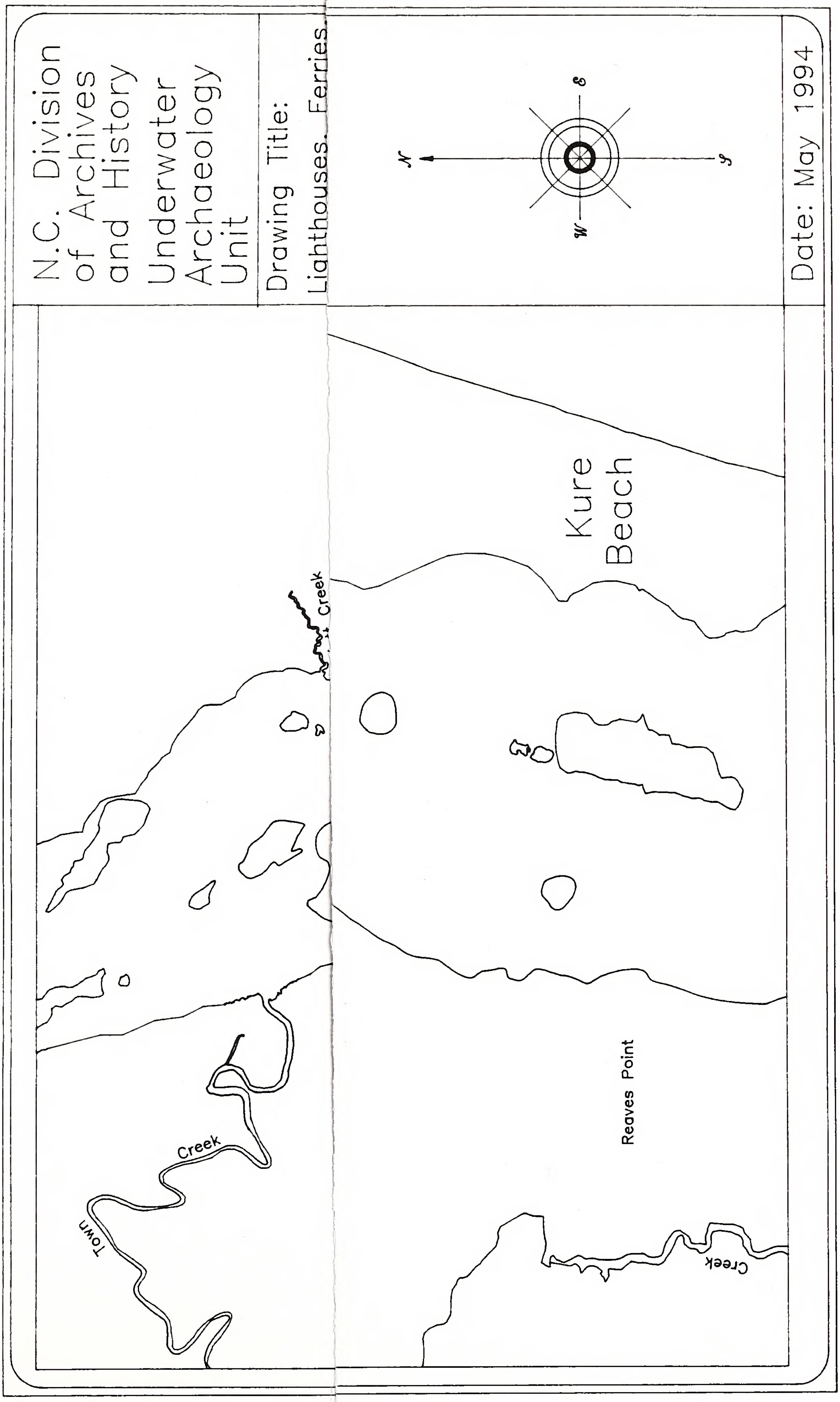
Drawing Title:
Lighthouses, Ferries, Quarantine Stations:
Smith Creek to Town Creek
Project:
Cape Fear River Comprehensive Survey
Legend:
Lighthouse
Scale:
0
1 mile
N
S
E
W
Date: May 1994
Northeast Cape Fear River
Ness Creek
Smith Creek
Wilmington
Point Peter Ferry
Market Street Ferry
Hilton Railroad Bridge
Hilton Bridge (c. 1830s – 1850s)
Hilton Ferry
Twin Bridge (1929)
Holmes Bridge (1980)
Twin Bridge (1929)
Muddy Point
Cape Fear River
Northwest Cape Fear Bridge (1984)
Alligator Creek
Redmond Creek
Cape Fear Memorial Bridge (1969)
Eagles Island
Brunswick River
Upper Jettee Range Lights (1855)
Cape Fear River
Eagles Island Light (1864)
Jockeys Creek
Sturgeon Creek
Barnards Creek
Mallory Creek
Town Creek
Creek

Figure 18. Lighthouses, Ferries & Quarantine Stations:
Smith Creek to Town Creek


N.C. Division of Archives and History
Underwater Archaeology Unit
Drawing Title:
Lighthouses, Ferries.
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Kure Beach
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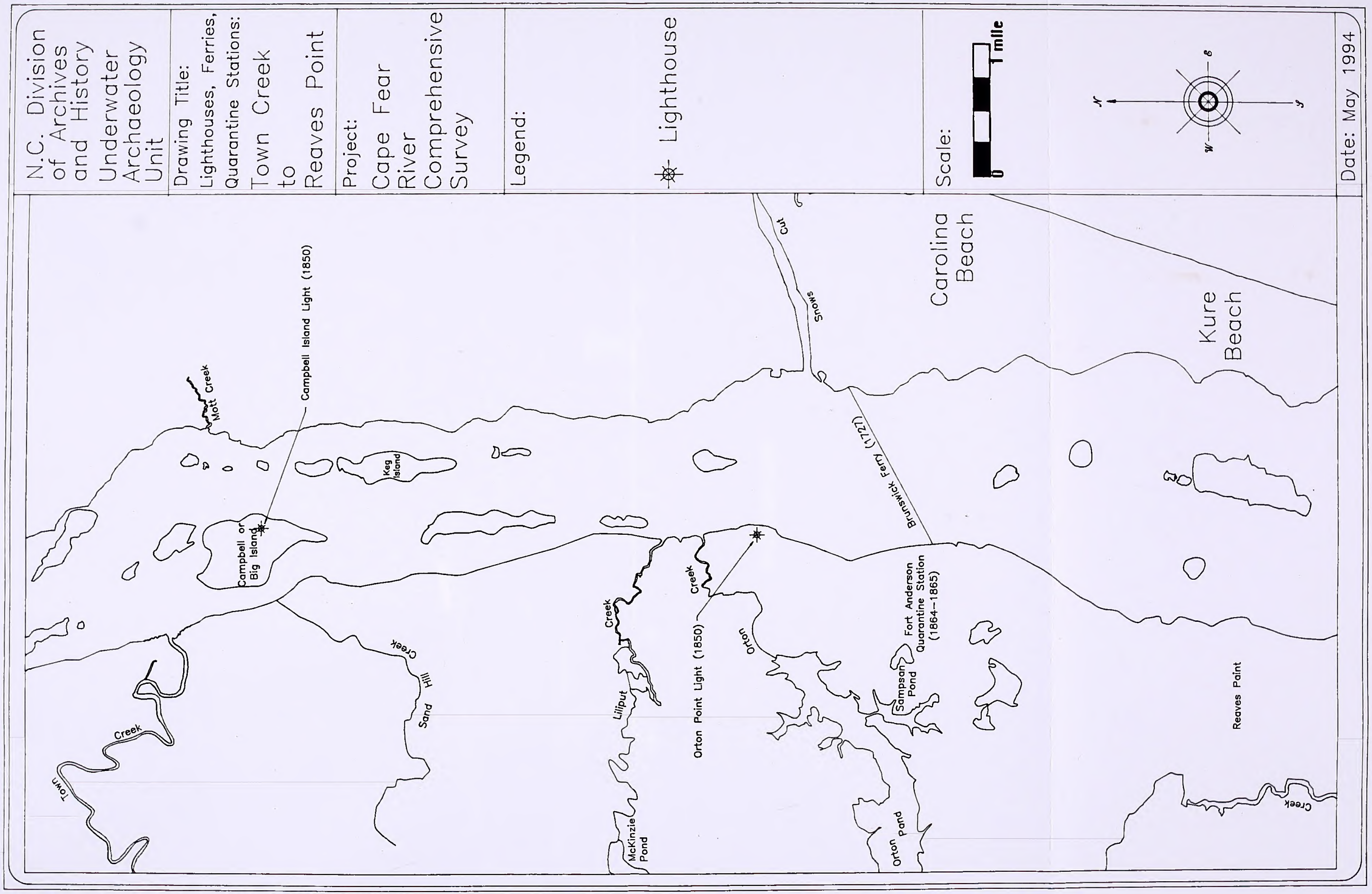
Reaves Point
Town
Creek
Creek

Figure 19. Lighthouses, Fe
Town Creek to R


N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title: Lighthouses, Ferries, Quarantine Stations: Town Creek to Reaves Point
Project: Cape Fear River Comprehensive Survey
Legend:
Lighthouse
Scale:
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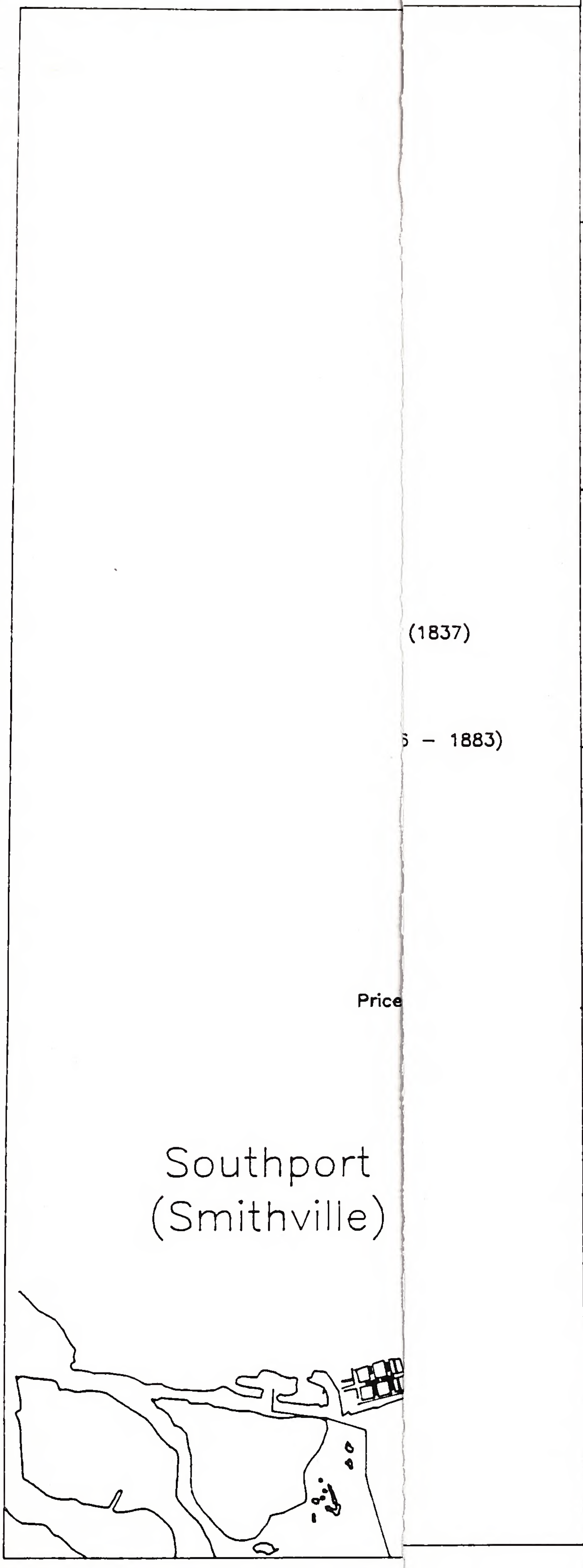
Date: May 1994
Carolina Beach
Kure Beach
Snows Cut
Mott Creek
Campbell Island Light (1850)
Keg Island
Campbell or Big Island
Brunswick Ferry (1727)
Fort Anderson Quarantine Station (1864-1865)
Orton Point Light (1850)
Creek
Creek
Orton
Sampson Pond
Liliput
McKinzie Pond
Orton Pond
Sand Hill Creek
Town Creek
Reaves Point
Creek

Figure 19. Lighthouses, Ferries & Quarantine Stations: Town Creek to Reaves Point.


(1837)
5 – 1883)
Price
Southport
(Smithville)

N.C. Division of Archives and History

Underwater Archaeology Unit

Drawing Title:

Lighthouses, Ferries, Quarantine Stations: Reaves Point to Southport

Project:

Cape Fear River Comprehensive Survey

Legend:

✵ Lighthouse

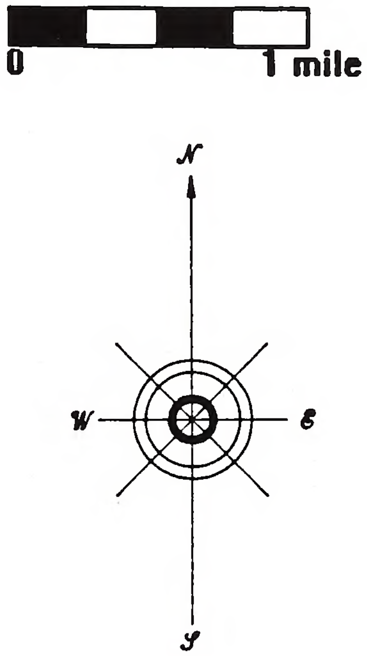

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Figure 20. Lighthouses, Ferrie
Reaves Point to Sou

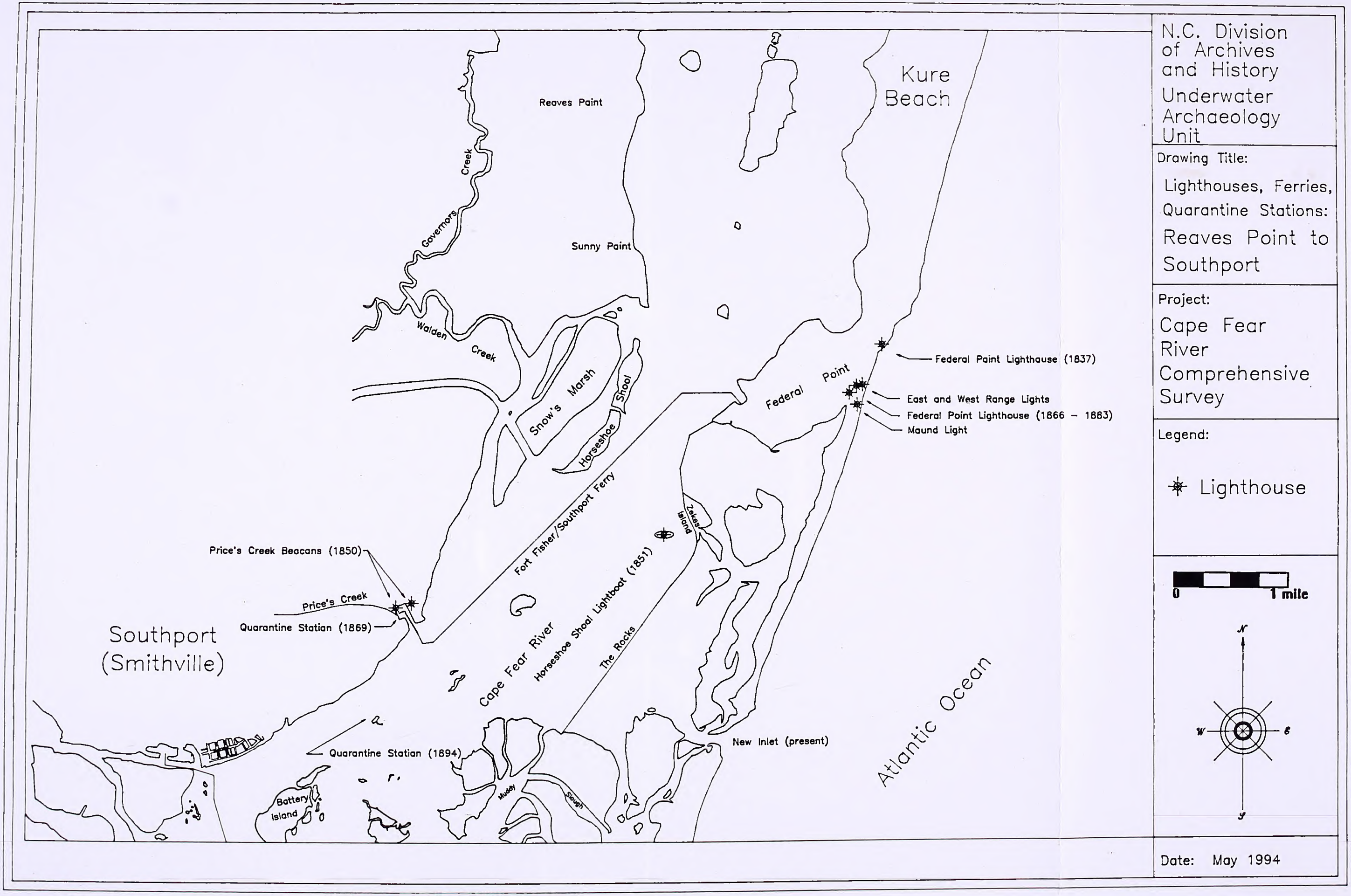
N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title:
Lighthouses, Ferries, Quarantine Stations: Reaves Point to Southport
Project:
Cape Fear River Comprehensive Survey
Legend:
Lighthouse
0
1 mile
N
W
E
S
Date: May 1994
Kure Beach
Reaves Point
Creek
Governors
Sunny Point
Walden
Creek
Snow's Marsh
Shoal
Horseshoe
Federal Point
Federal Point Lighthouse (1837)
East and West Range Lights
Federal Point Lighthouse (1866 – 1883)
Maund Light
Fort Fisher/Southport Ferry
Zekes Island
Horseshoe Shoal Lightboat (1851)
The Rocks
Price's Creek Beacons (1850)
Price's Creek
Quarantine Station (1869)
Southport (Smithville)
Cape Fear River
Quarantine Station (1894)
Battery Island
Muddy
Slough
New Inlet (present)
Atlantic Ocean

Figure 20. Lighthouses, Ferries & Quarantine Stations: Reaves Point to Southport.

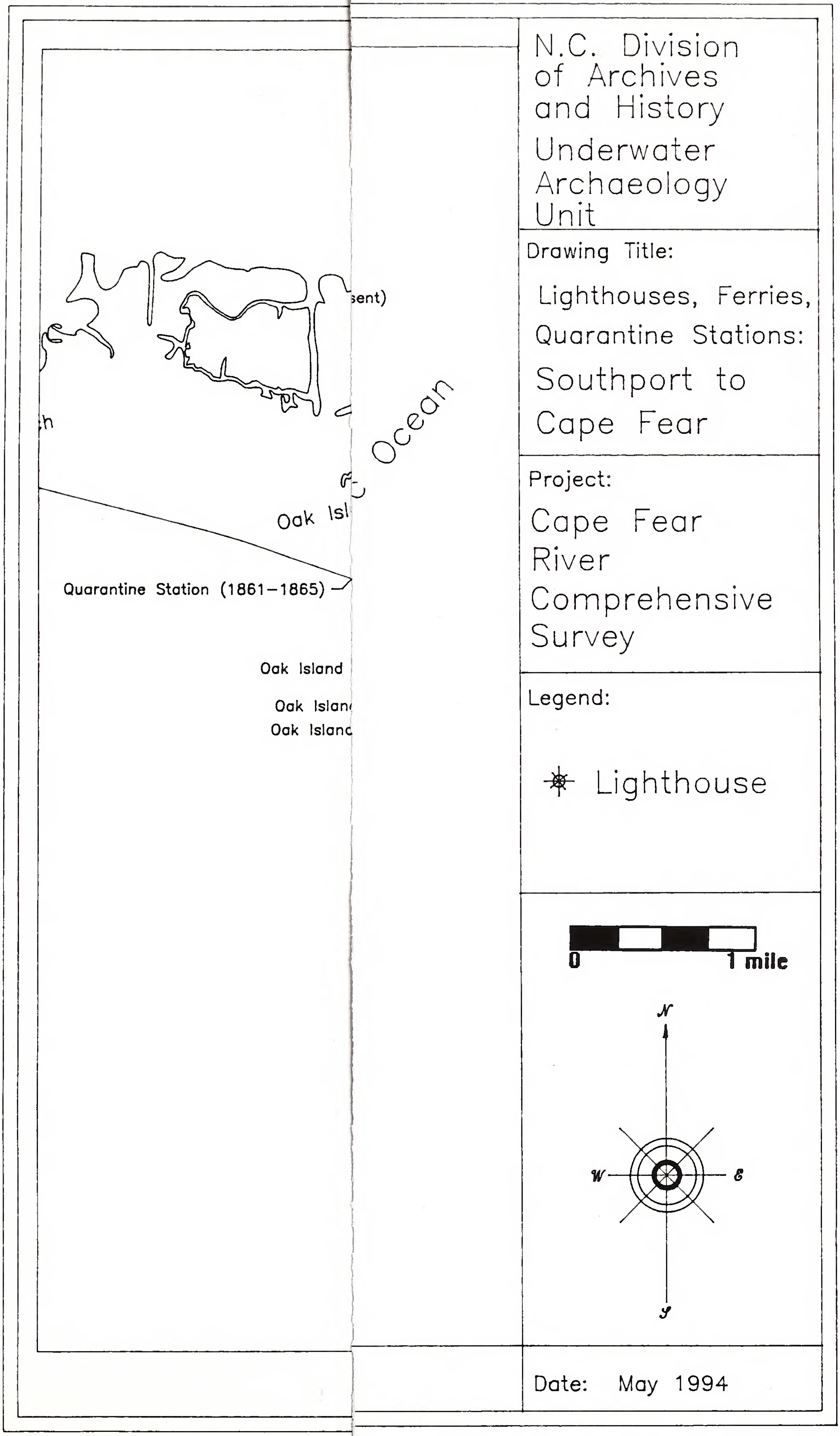
sent)
h
Ocean
Oak Isl
Quarantine Station (1861–1865)
Oak Island
Oak Islan
Oak Islanc
N.C. Division of Archives and History
Underwater Archaeology Unit
Drawing Title:
Lighthouses, Ferries, Quarantine Stations:
Southport to Cape Fear
Project:
Cape Fear River Comprehensive Survey
Legend:
Lighthouse
0
1 mile
N
W
E
S
Date: May 1994

Figure 21. Lighthouses, Ferr
Southport to Cape

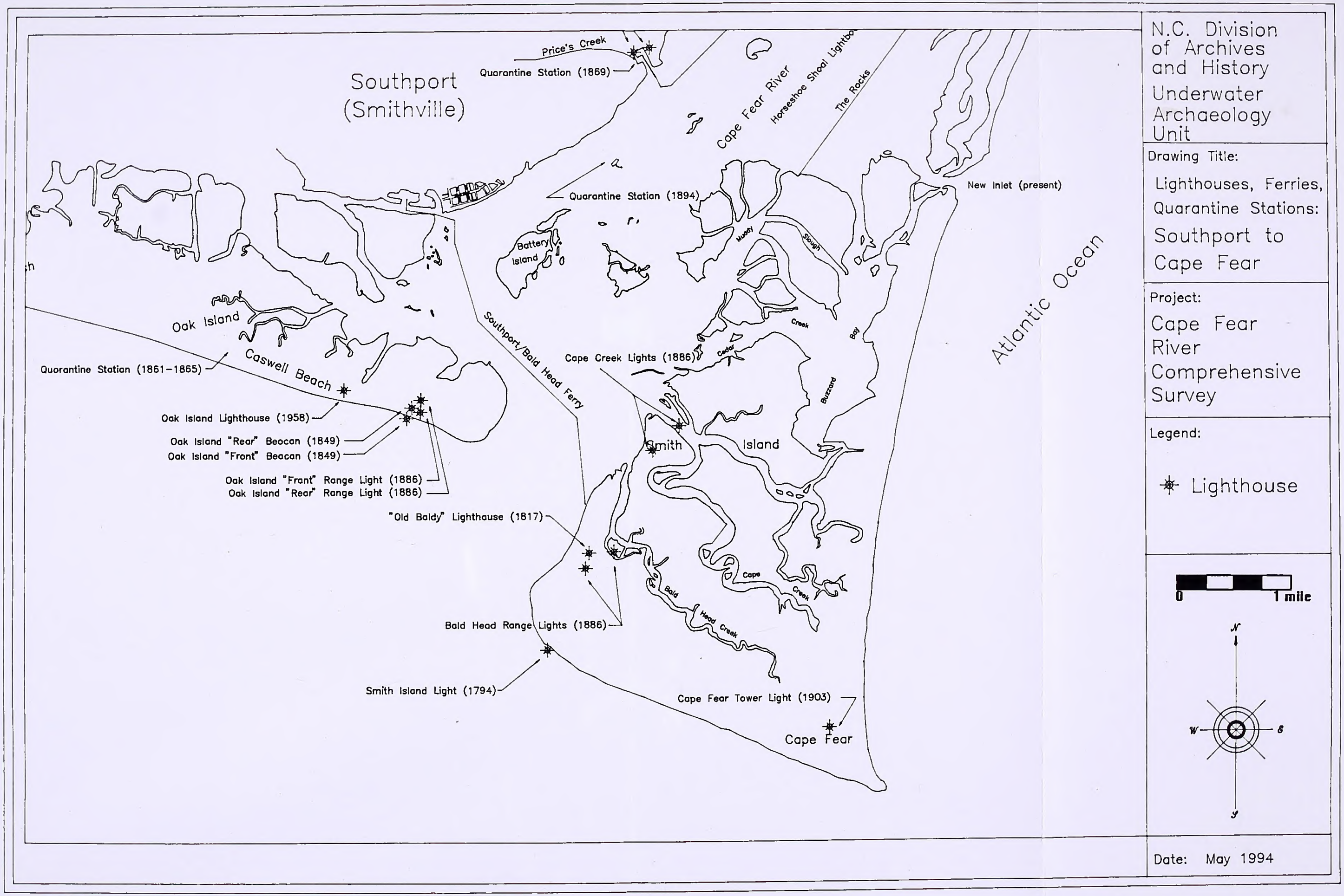
N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title:
Lighthouses, Ferries, Quarantine Stations: Southport to Cape Fear
Project:
Cape Fear River Comprehensive Survey
Legend:
Lighthouse
0
1 mile
N
E
S
W
Date: May 1994
Southport (Smithville)
Price's Creek
Quarantine Station (1869)
Cape Fear River
Horseshoe Shoal Lightbo
The Rocks
Quarantine Station (1894)
New Inlet (present)
Battery Island
Muddy
Slough
Atlantic Ocean
Oak Island
Caswell Beach
Quorantine Station (1861–1865)
Southport/Bald Head Ferry
Cape Creek Lights (1886)
Cedar
Creek
Bay
Buzzard
Oak Island Lighthouse (1958)
Oak Island "Rear" Beocan (1849)
Oak Island "Front" Beacon (1849)
Oak Island "Front" Range Light (1886)
Oak Island "Rear" Range Light (1886)
Smith Island
"Old Baldy" Lighthouse (1817)
Cape Creek
Bald Head Creek
Bald Head Range Lights (1886)
Smith Island Light (1794)
Cape Fear Tower Light (1903)
Cape Fear

Figure 21. Lighthouses, Ferries & Quarantine Stations: Southport to Cape Fear.

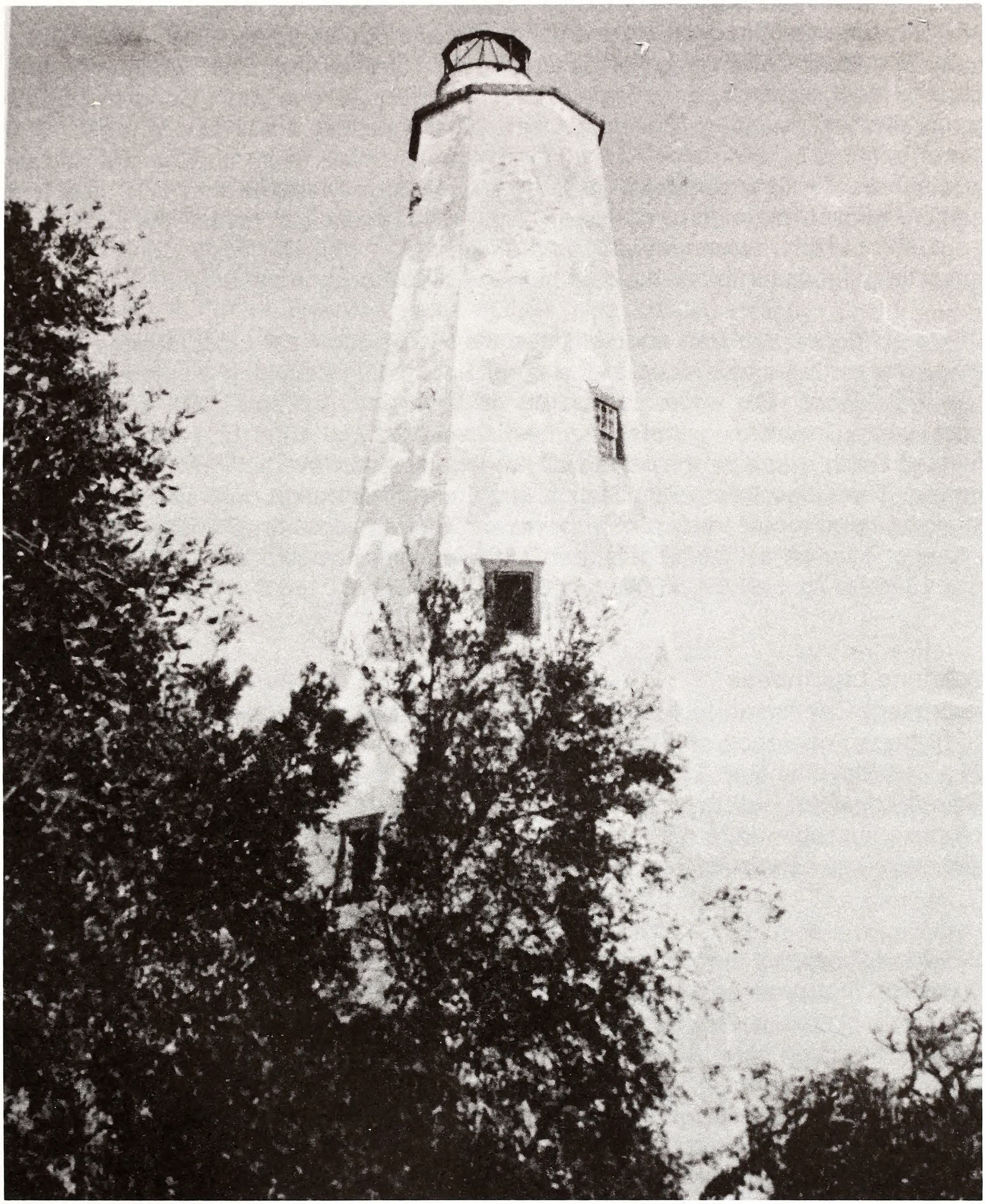

Figure 22. Photograph showing Bald Head Lighthouse.

elevating Bald Head, planners proposed in 1889 "a first-order masonry tower 150 feet high, with suitable oil-room, keeper's dwellings, and out-buildings." The new lighthouse would be capable of shining "a radius of 18½ miles of light" that would sufficiently extend to the extremities of the Frying Pan shoals. For several years Congress failed to appropriate the estimated $150,000 needed to construct the masonry tower. When "urgent petitions" were received by the lighthouse board from "commercial and pilot associations of Wilmington, N.C., and by shipmasters trading to that port," the board members revised the plan for a masonry tower and proposed instead the construction of a 150-foot-high skeleton-type tower at less than half the cost. Congress finally appropriated funds for the construction of a new lighthouse in 1898.

In 1903 builders completed and activated the third Cape Fear Lighthouse, a 184-foot steel skeleton tower that stood at the tip of Smith Island marking the entrance to the Cape Fear River. The upper portion of the tower was painted black and the lower portion white. In order to transport materials across the sand hills and through the forests of Smith Island for the new tower, construction workers built a wharf, trestle, and tramway. The Cape Fear Light Station remained in operation until 1958 when it was demolished and replaced by a new cylindrical light structure on Oak Island. Old Baldy continued to be an active fixed-light station maintained by the Coast Guard until 1935 (Stick 1985:75-78; Hall 1975:264).

Oak Island Lighthouse

The present Oak Island Lighthouse on Caswell Beach replaced the Cape Fear tower light. It began operation on May 15, 1958. Oak Island Light stands 169 feet in height with an 18-foot diameter. The top third of the cylindrical concrete structure is black, the middle third white, and the lower third grey. The 1,400,000 candlepower lamp of the lighthouse is visible under good conditions for a distance of 12 miles. The Oak Island Lighthouse also serves as a radio beacon navigational aid (Herring 1967:93-95).

Oak Island Beacons

For vessels that proceeded up or down the river past Southport, the two beacons on Oak Island played a key role in their safe passage to and from the sea. Below Southport the main channel of the river makes a broad curve to the east. Shoals on either side of the channel threatened the safety of vessels sailing past this point. In order for pilots to safely navigate the channel bend, the lighthouse commission authorized in 1848, and had built in 1849, two beacons on Oak Island. One light was built on a round brick tower, the other mounted on top of a keeper's house. Of the two beacons, the northernmost, and highest, was known as "the rear light." It displayed a fixed white light 37 feet above sea level, 10 feet higher than the low light, also known as the Bug light (Stick 1980:38; Herring 1967:109-111; Herring and Williams 1983:4; Wilmington Chronicle, December 13, 1848).

The two brick towers constructed on Oak Island were apparently among the lights extinguished by the Confederates in 1861. A Union map drawn in January 1865 shows the position of two range lights on Oak Island 200 yards east of Battery Campbell. Following the war, the commission either had two new navigational structures constructed, or the lights moved slightly inshore, as shown on an 1888 U.S. Coast Survey map. The Oak Island Range Lights, or Caswell Light, consisted of a front and rear light. The rear, or high light, was a wooden tower built on a square brick foundation approximately 16 feet high by 14 feet square. A contemporary newspaper account described the front tower as "an open-frame frustum of a square pyramid resting on a tram railway, which allows of its being moved to the right or left, to suit the changes in the channel." A typical keeper's dwelling was also located nearby. The frame-built dwelling consisted of two rooms with a separate kitchen. The storm that occurred on October 11-13, 1893, seriously damaged the structure. Waves tore the brick foundation out from under the dwelling. The twin lights proved to be less than acceptable in their task in marking the range over the bar. The lights "being so near each other that considerable deviation from the true course is necessary to make them appear to separate." As a result, the commission ordered the station discontinued on July 31, 1894. Fire accidentally destroyed the remains of the wooden tower of the rear light in 1958. The brick foundations remain (USACOE 1865c; USGCS 1888; Wilmington Star, February 22, 1885, October 15, 1893; Stick 1980:38; Herring 1967:113-115).

Federal Point Lighthouses

In 1814 the U.S. Congress authorized the construction of a beacon at Federal Point. Two years later, on September 15, Robert Cochran, collector of customs at Wilmington and superintendent of the lighthouse on Bald Head, reached an agreement with Benjamin Jacobs of the town of Wilmington, for the construction of the new beacon. Jacobs agreed that he would build a beacon on Federal Point above New Inlet before the end of the year. The beacon, defined simply as a small lighthouse, stood on a stone or brick foundation laid approximately three feet under the ground. The conical brick beacon rose forty feet in height to the base of the lantern. At its base it measured six feet across with walls three feet thick. Wooden shingles covered the top of the three-floored beacon. Ladders connected each of the floors. Little is known of the type lantern used except that it was a fixed light. A door entered the beacon, while only a single window was placed near the top of the structure. The entire exterior of the brick beacon was plastered and painted white. By the spring of 1817 Robert Cochran certified that Benjamin Jacobs had successfully completed the task of building the lighthouse and it was ready for service. For his task Jacobs received the sum of thirteen hundred dollars (Stick 1980:23). The beacon warned mariners of the hazards at New Inlet until the night of April 13, 1836, when flames engulfed and totally destroyed it (U.S. Lighthouse Service Records 1816, 1817; Wilmington Advertiser, April 22, 1836).

In 1837 Henry Stowell of Hingham, Massachusetts. reconstructed the Federal Point lighthouse. It operated until Confederate forces put it out of use in 1863. This new tower was constructed of hard brick in a rounded form 30 feet above the surface of the ground. The diameter of the base measured 18 feet, while the top was 9 feet. An arched deck of soap stone 11 feet in diameter, four inches thick, and the joints filled with lead, topped the brick tower. Entrance to the lantern was made through a scuttle sealed by an iron and copper scuttle door. The wrought iron lantern was built in an octagonal form and contained eleven patent lamps and reflectors. The brick tower contained a door six feet by three feet, and three windows. The tower and woodwork were painted white, except for the dome that was painted black. Adjacent to the lighthouse a one-story dwelling house 34 feet by 20 feet was built of hard brick and contained a chimney at either end. The following year a cistern was added to the complex. A third lighthouse was put into service after the war in 1866 and used until the closing of New Inlet in 1880. On August 23, 1881, although no longer in use, fire destroyed the lighthouse. At that time a Mr. Taylor, the former keeper, and his family occupied the lighthouse located less than one mile from the site of Fort Fisher (U.S. Lighthouse Service Records 1837, 1838; Wilmington Star, August 24, 1881; Stick 1980:60; Stick 1985:71).

Price's Creek Beacons

The design of the twin beacons located at Price's Creek, above Southport on the west side of the river, served the same function as those at Oak Island. Construction of the twin range lights assisted vessels heading downstream in navigating the channel around Horseshoe Shoal. The lights, authorized by Congressional appropriation on August 14, 1848, were operational by 1850. The local lighthouse board appointed Samuel C. Mabson of Wilmington as the keeper of the new Price's Creek beacons, but that appointment was not carried out. John Bell became the first keeper of the lights at Price's Creek. "The main structure was a wooden tower mounted on top of the keeper's dwelling, the focal plane of the light being twenty-two feet above ground level and thirty-five feet above mean high water. The second light was a circular brick structure, sixteen feet high, with the light twenty-five feet above the water" **(Figure 23)** (Stick 1980:39). That structure was later extended an additional 8 feet in height. In 1861 Confederate forces put the Price's Creek lights out of use, and they were not re-established until after the War Between the States. Members of the Ruark family were the last residents at the keeper's brick dwelling. By the 1880s a lighted beacon in the river had replaced the lights at Price's Creek. The brick foundation of the original Price's Creek beacon still stands on the north shore above the Southport to Fort Fisher ferry landing (The State Port Pilot, December 3, 1969; Herring 1967:105-108; Sprunt 1896:114; Reaves 1978:52; U.S. Coast Survey 1857a, 1864, 1865a, 1872, 1886).

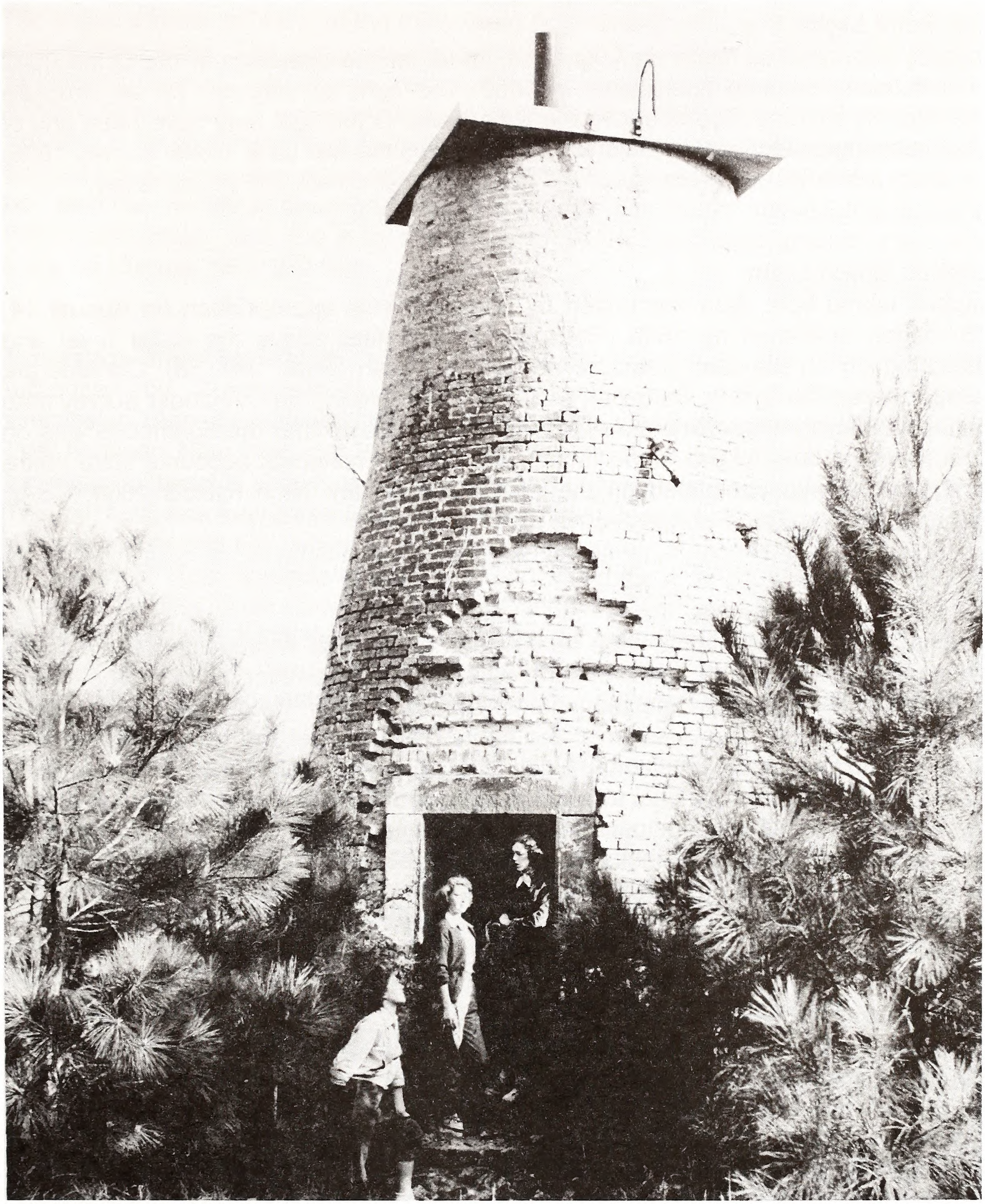

Figure 23. Figure showing Price's Creek Lighthouse.

Orton Point Light

Congress appropriated funds on August 14, 1848, for the operation of the Orton Point light that finally became operational in 1850. The light, constructed on an structure above the marsh, rose 29 feet above the water level. Orton light may have been one of the lights extinguished by Conferderate forces during the war (U.S. Coast Survey 1856, 1864; Stick 1980:38). The remains of the light's foundation are still visible today.

Campbell Island Light

Campbell Island light, also authorized by Congressional appropriation on August 14, 1848, began operation by 1850. The light was 29 feet above the water level and constructed on an elevated structure above the marsh (Stick 1980:38). Confederate forces rendered the light at Campbell's Island inoperable in 1861. A Coast Survey map drawn in 1863 and a Confederate map from 1864 indicate that the lighthouse was on the southeastern side of the island. Some unconfirmed historical accounts state that a new lighthouse was completed on the island in February 1879 (USCS 1864; CSAE 1864c; Wilmington Star, February 4, 1879).

Upper Jettee Range Lights

The Upper Jettee Range lights were part of the navigational improvements authorized by Congress on August 14, 1848. Several years passed, however, before construction took place on those lights. The planners of river navigation determined after careful investigation that the initial design of the lights did not meet the needs of mariners. With the appropriation of additional funds, the navigation authorities finally built by 1855 two range lights on the east side of the river about 3 miles below Wilmington. The larger of the two lights was enclosed in an open framework and mounted on top of the keeper's dwelling. It measured 65 feet above sea level. The smaller range light, 800 feet from the other light, reached 42 feet above the water. Confederate forces destroyed the Upper Jettee Range lights in 1861 (Stick 1980:36-37, 40-41).

Cape Fear River Lights

Prior to the turn of the century, navigation lights along the lower Cape Fear River consisted of twenty-nine oil-burning, post-lantern types mounted on wooden structures. Often these lights were inaccurately placed along the river channels. Under a federal act established on March 4, 1911, and a subsequent act passed on August 26, 1912, that provided additional funding, the old lights were replaced with thirty-three new navigation lights. From the mouth of the river to about 20 miles from the entrance, seventeen acetylene rear-mounted lights were installed. The additional sixteen lights up to Wilmington were oil filled. Oil lights were fixed with a rear white light and a front red light. Ten of the new lighted beacons were established by December 1, 1912, and the remainder by November 15, 1913 (Sprunt 1992:520-521; Wilmington Star, June 19, 1912).

The substructures for thirty of the thirty-three light towers were built above the water on a hard sand base. The substructures consisted of four reinforced concrete piles and connecting beams. Light towers were built of galvanized iron pipe and carried slatted wooden daymarkers. Towers for rear range lights were 30 feet high and for front lights and others 10 feet high. Two lightkeepers maintained the navigational beacons—one stationed in Southport and the other in Wilmington. In addition to whistling buoys that indicated the shoals at the mouth of the river, two iron buoys marked the quarantine station anchorage, and one buoy marked a wreck on the middle ground at the river's entrance (Sprunt 1992:520-521).

Horseshoe Shoal Lightboat

Authorized by Congressional appropriation on August 14, 1848, the lightship commission placed Lightship *UU* on station in 1851 in the middle of the Cape Fear River between New Inlet and Price's Creek. On an 1857 map prepared by the Coast Survey, a lightboat is shown at the western end of New Inlet east of Horseshoe Shoal. "The [oil] light was forty-three feet above water level, and the vessel was also equipped with a fog horn and bell, which was sounded alternately at five-minute intervals during bad weather." The commissioners intended the lightboat to be one of the "chain of Lights extending from the Jettys." By 1863, maps showed the lightship as "extinguished," signifying that the commissioners had authorized the removal of the vessel or that it had been sunk or destroyed by Confederates forces. Range lights replaced the lightship station after 1870 (Flint 1989:n.p.; Herring 1967:108; Coast Survey 1857).

Horseshoe Shoal Lighthouse

An attempt to raise a lighthouse on Horseshoe shoal in 1868 met with disaster when the structure under construction nearly collapsed. On March 23 one of the iron pilings that supported a structure of wood gave way. The building tottered and partially fell, presenting an appearance described as "a miniature Leaning Tower of Pisa." In September 1871 the U.S. Lighthouse Steamer *Dandelion* removed the collapsed iron piles (Stick 1980:40; Herring 1967:108; USCS 1857; Flint, 1989:n.p.; Reaves 1978:74,82; Wilmington Star, March 24, 1868).

Frying Pan Shoals Lightships

From 1854 to 1964 ten lightships were stationed, or restationed, on Frying Pan Shoals; the vessels in order of assignment were *D*, *8, 32, 29, 34, 29, 32, 38, 29, 53, 1, 94* and *115*. The U.S. Lighthouse Service placed the original Frying Pan Shoals Lightship, *D*, on station in 1854. That vessel, a first-order lightship equipped with two lights 40 feet above the water level, continued to warn mariners of the shoals until it was removed to the Cape Fear River near Fort Caswell. On December 30, 1861, Union troops burned Lightship *D*. In 1860 the lighthouse service assigned Lightship *No. 8*, known as the

Arctic, as a replacement at the Frying Pan. Prior to being placed on station, Confederate forces seized the lightship and converted it into a receiving ship. The Confederates later sank the vessel in the Cape Fear River as an obstruction to enemy navigation. After the war salvors raised Lightship *No. 8*, repaired it, then had it towed north in 1866 by the tender *Iris* (Hall 1975:259; Stick 1980:46; ORN Series I, 6:493; Flint, 1989:n.p.).

In late 1865 the lightship service had Lightship *No. 29*, a two-masted, schooner-rigged vessel, anchored off the tip of the shoals in ten fathoms of water. That lightship, the first to be marked with the words "Frying Pan Shoals" in bold black letters across a yellow lower hull, exhibited two lights at an elevation of 40 feet above sea level.

Some lightships were assigned temporary duty on the Frying Pan Shoals, while the regular vessel was undergoing repair or maintenance (Hall 1975:259; Stick 1980:46; ORN Series I, 6:493; Flint, 1989:n.p.). In 1907 Lightship *No. 1* was anchored on station until replaced by Lightship *No. 94* in 1911. Lightship *No. 94* remained on station for nineteen years until replaced in 1930 by Lightship *No. 115*. On November 24, 1964, the present operational Frying Pan Shoals light tower replaced Lightship *No. 115* (WAL-537), the last lightship to be anchored on the shoals (Hall 1975:260; Flint 1989:n.p.). The U.S. Lightship Commission intended *No. 115* to be reassigned as a relief lightship at Cape May, New Jersey. The U.S. Lightship Commission, however, decommissioned the ship after it had already been repainted and renamed *Relief*. Around 1965 local citizens of Southport, North Carolina, began efforts to turn the lightship into a floating museum located at their town near the Frying Pan Shoals. Although original efforts were promising, the commission eventually sold the ship, and its new owners removed it from North Carolina (Wilmington Star, November 5, 1969).

Ferry and Bridge Crossings

Six ferries and five bridges have been identified within the project area (**Figures 18,19,20,21**). A description for each of the following is given below.

- Brunswick Ferry
- Hilton Ferry
- Cape Fear River Ferry
- Point Peter Ferry
- Fort Fisher-Southport Ferry
- Southport-Bald Head Island Ferry
- Hilton Bridge
- Twin Bridges
- Cape Fear Memorial Bridge
- Northeast Cape Fear Bridge

Brunswick Ferry

The first authorized ferry on the lower Cape Fear River was established in 1727 from the town of Brunswick on the western shore to the "upper haulover" on the eastern shore, where small craft were transported overland from the river to the ocean. The Brunswick ferry was sometimes referred to as the "Ferry to the landing at Big Sugar Loaf" (Angley 1986:2; New Hanover County Deeds, Book E-313; AB-212).

On June 3, 1725, Maurice Moore was granted 1,500 acres of land on the west side of the Cape Fear River. Of this tract, 320 acres were set aside and a portion divided in half-acre lots to be developed as the town of Brunswick. From the time of its founding until the American Revolution, the town served as a political, social, and commercial center of the lower Cape Fear region. To facilitate travel between the ocean and the interior of Brunswick County, the general court met at Edenton on March 27, 1727, and determined that a ferry was needed over the Cape Fear River. The general court authorized Cornelius Harnett Sr. to keep a ferry "from the place designed as a Town on the West side of the River (Brunswick Town) to a place called Haulover, and that he receive the Sum of five shillings for a man and horse and a half Crown for each person" (Colonial Records, 2:686-698; Watson 1992:6). Harnett purchased in June 1726 from Col. Maurice Moore two lots, Nos. 22 and 23, within the town of Brunswick for £2 each. Those lots, located in the southern portion of the town near the river, were to be improved within eight months by the construction of two habitable houses not less than 16 feet by 20 feet in size. It was from this location that Harnett operated the ferry across the river to the haulover near Sugar Loaf (South 1960:2-4; Angley 1986:2; New Hanover County Deeds, Book E-313; AB-212; Colonial Records, 2:686-698; McKoy 1973:30, 119, 155).

About 1725, in addition to the site of Brunswick Town and adjacent areas, Col. Maurice Moore also acquired by grant extensive landholdings on the opposite or eastern side of the Cape Fear River. Moore's seaside property comprised 2,640 acres that extended from Landgrave Thomas Smith's lands northward along the barrier beach and sounds approximately 12 miles to a point just below the present Masonboro Inlet. On April 21, 1736, Colonel Moore sold to Col. Thomas Merrick for £500 the large tract of land that became known as the Haulover plantation and a portion of the property to John Porter. Merrick called the plantation "Hall Over" in a security bond issued to Richard

Moorescroft six days later. While Merrick was probably a longtime resident at the plantation, and subsequently appointed keeper of the ferry, there is no indication that Moorescroft ever resided at The Haulover. Perhaps Moorescroft simply held the land in trust for Merrick, inasmuch as Merrick's heirs owned the property a few years later (Angley 1986:2; New Hanover County Deeds, Book E:313, AB:37, AB-212; Colonial Records, 2:686-698; McKoy 1973:30, 119, 155).

The Moseley map (1733) shows the eastern ferry landing located just below the mouth of a stream that much later came to be known as Telfairs Creek. This ferry to the landing at Big Sugar Loaf on the opposite side of the river, a distance of more than 2 miles, connected with the only road to the northern part of the province (Wilmington Star, May 6, 1948; Sprunt 1896:58). Surviving records indicate that Cornelius Harnett Sr. surrendered the operation of the Brunswick ferry in the mid-1730s, possibly as early as 1733. His successor was the mariner Capt. Edward Scott, who purchased lot 29 at Brunswick from Nathaniel Moore during that year for £700. Scott's employment as a ferry keeper apparently lasted only a few years, for in March 1738 the New Hanover County Court accepted his resignation (Angley 1986:6; New Hanover County Court Minutes, 1738; New Hanover County Deeds, Book AB:125). On June 13, 1738, the court appointed Thomas Merrick "to take the Brunswick Ferry" after the resignation of Scott. Merrick operated the ferry until September 1740, when the court also accepted "the resignation of Col. Merrick as a Ferry Keeper at Brunswick ordered to become effective within a month after this Court," provided it could find a proper person to keep the ferry (Angley 1986:6; New Hanover County Court Minutes, 1740).

On June 12, 1741, permission to operate the Brunswick ferry was granted by the court to Roger Moore, who undoubtedly employed others for at least two years to carry out the actual duties involved. From 1743 until at least 1748 John Maultsby operated the ferry. Maultsby came to the lower Cape Fear in the late 1730s from Pennsylvania, where he had previously operated a river ferry. He purchased a 320-acre tract of land on the east side of the river just upstream and across from Brunswick Town (New Hanover County Deeds, Book C:164-165; Angley 1986: addendum). By 1761 a new tender, Darby Eagan, had commenced operation of both an ordinary and the Brunswick ferry. In September 1760 the court ordered all ferry keepers in New Hanover County to maintain at least two boats to each ferry. By 1765 Darby Eagan had evidently remained at his ordinary in Brunswick Town, while his wife Elizabeth stationed herself on the opposite shore for the convenience of travelers. For the next four years Darby Eagan maintained the Brunswick ferry and continued to operate his ordinary. He then sought to improve his fortunes by assuming responsibility for ferry service in the larger and more prosperous town of Wilmington. On October 6, 1769, the New Hanover County Court denied Eagan "the keeping of the ferry over to Brunswick any longer, because he had engaged himself at the Wilmington ferry" (Angley 1986:8; New Hanover County Court Minutes, 1760 and 1769).

The Brunswick ferry remained in operation with a new keeper until at least 1775 and it is highly probable that it continued to operate until early in 1776. By the end of March of that year, however, British warships present in the lower reaches of the Cape Fear River, along with well-armed troops placed ashore, carried out sporadic raids against Brunswick Town and the surrounding countryside. It was probable during these early months of 1776 that the inhabitants of Brunswick permanently abandoned the town. It is also probable that the Brunswick ferry was forever discontinued during that period (Angley 1986:10: Lee 1965:271-273; Collet 1770; Mouzon 1775; Anonymous 1781; Holland 1794).

Hilton Ferry

Across the Northeast Cape Fear River just south of Smith's Creek, a ferry located at Hilton operated during the late nineteenth century. Hilton was the name given to a 272-acre plantation on the eastern shore owned a century earlier by John and William Hill (Lee 1980:141; Waddell 1989:49; Sprunt 1992:121-122).

By 1853 the Hilton plantation was in the possession of James F. McRee, who later served as a surgeon in the Confederate States Army. McRee parceled and sold off Hilton plantation between 1853 and 1867. On January, 21, 1853, a deed registered in the county showed that McRee had conveyed a parcel of land from the plantation to Oscar G. Parsley. On that piece of land, known as the Hilton Mills Property, Parsley established a steam sawmill. That twenty-six-lot property was within the corporate limits and contained a waterfront of 1,693 feet, with 413 feet of wharf and the remainder a timber pen. James McRee sold another section of the Hilton plantation on November 22, 1867, to George W. Grafflin. It is probable that during this period the "Hilton ferry" was established across the Northeast Cape Fear River. The Hilton ferry is first indicated on a Confederate States Army engineer's map drawn in 1864 and may have been established to accommodate the movement of people and supplies northward along the Point Peter road from Wilmington into the interior of the county (CSAE 1864; New Hanover County Deeds, Book H-427; McKoy 1973:32).

In 1870 a Mr. C. Hussell announced that he had opened a beer garden on the old Hilton estate, and by at least 1876 the steamer *Little Sam* was making regular daily trips between the Market Street dock and Hilton (Lee 1980:142-145; New Hanover County Deeds, Book WW-275, 418; Wilmington Journal, February 23, 1866, July 26, 31, 1870; Wilmington Star, November 5, 1876). The ferry across the Northeast Cape Fear River is shown on an 1885 map by the U.S. Army Corps of Engineers and on the James & Brown map (1889) with the eastern landing at the foot of Hilton Street. By 1893 the ferry is indicated as the "Old County Ferry" and is shown immediately south of "old bridge piers." That bridge may have been the pedestrian bridge or the original railroad bridge. An existing bascule railroad bridge is shown slightly farther upstream. By the 1890s a park had been established at Hilton, and the ferry is no longer shown after the turn of the century (USACOE 1885, 1893; James & Brown 1889; Lee 1980:142-145; Wilmington Star, April 10, 1906).

Cape Fear River (Market Street) Ferry and the Brunswick River Ferry

Travel along the eastern coast before the American Revolution generally followed a main artery known as the King's Highway or the Great Road. This route connected the northern colonies with Charleston and points southward. The last section of this road was established in 1732 between the Cape Fear and Neuse Rivers. When Brunswick Town served as the center of commerce along the lower Cape Fear River, the road extended from near the eastern landing of the Brunswick Ferry northward. Beginning in the 1740s Wilmington (Newton) began to establish itself as the leading port on the lower Cape Fear; its role was strengthened when the British destroyed Brunswick in 1776. With the ferry located at Brunswick made inoperable by the British threat, travel began to pass through Wilmington. The most difficult passage of the highway northward into Virginia ran westward from Wilmington across the huge morass known as Eagles Island (Angley 1986:4; Watson 1973:42).

Passage across the island was nearly impossible, and vehicles were ferried from Wilmington to a point south of the island, from which they had a tedious task to get to the main road connecting with inland North Carolina and upper South Carolina. The result was that in the year 1764 plans were made for the construction of a causeway across the island, so that by means of ferries across both the Cape Fear and Brunswick Rivers vehicular traffic could reach Brunswick County much quicker and with greater ease. After a lengthy process, Col. William Dry received a contract to construct the causeway across Eagles Island that connected the two river ferries. However, after beginning the project Dry died, and his son-in-law, Benjamin Smith completed the causeway (Angley 1986:4; Watson 1973:42; Clark 1904:XXV:487-488; Wilmington Star-News, February 10, 1935).

On September 3, 1766, a petition of Joseph Newton to keep a ferry at Wilmington was granted by the court. By 1769 Darby Eagan is known to have been operating the Wilmington ferry. Eagan had maintained the Brunswick Ferry but sought to improve his standing in the larger and more prosperous town of Wilmington. On October 6, 1769, the New Hanover County Court denied Eagan "the keeping of the ferry over to Brunswick any longer, because he had engaged himself at the Wilmington ferry." In 1777 Dry's heirs sold the rights to operate the ferry to Samuel Campbell, who incorporated them into the assets of the Wilmington merchant firm of Campbell and Hogg (Angley 1986: 8; New Hanover County Court Minutes, 1769; Brunswick County Deeds, Book B:26, 125-127).

The earliest river ferries at Wilmington consisted of flatboats, often towed by rowboats **(Figure 24)**. This method of propulsion continued into the early part of the present century, when a gasoline boat replaced the self-propelled flats. In 1774 inspector Hugh Finlay while on a postal tour wrote: "I passed the first ferry [across Brunswick River] on a small leaky flat, the second [over the Cape Fear River at Wilmington] in a large one but very wet" (Lee 1978; Finlay 1867:66). Four years later Ebenezer Hazard, also a postal inspector, noted the ferries and causeway in his journal. He mentioned that he "Staid in Wilmington till the 16th [Jan., 1778], when I crossed the Ferry, rode over a

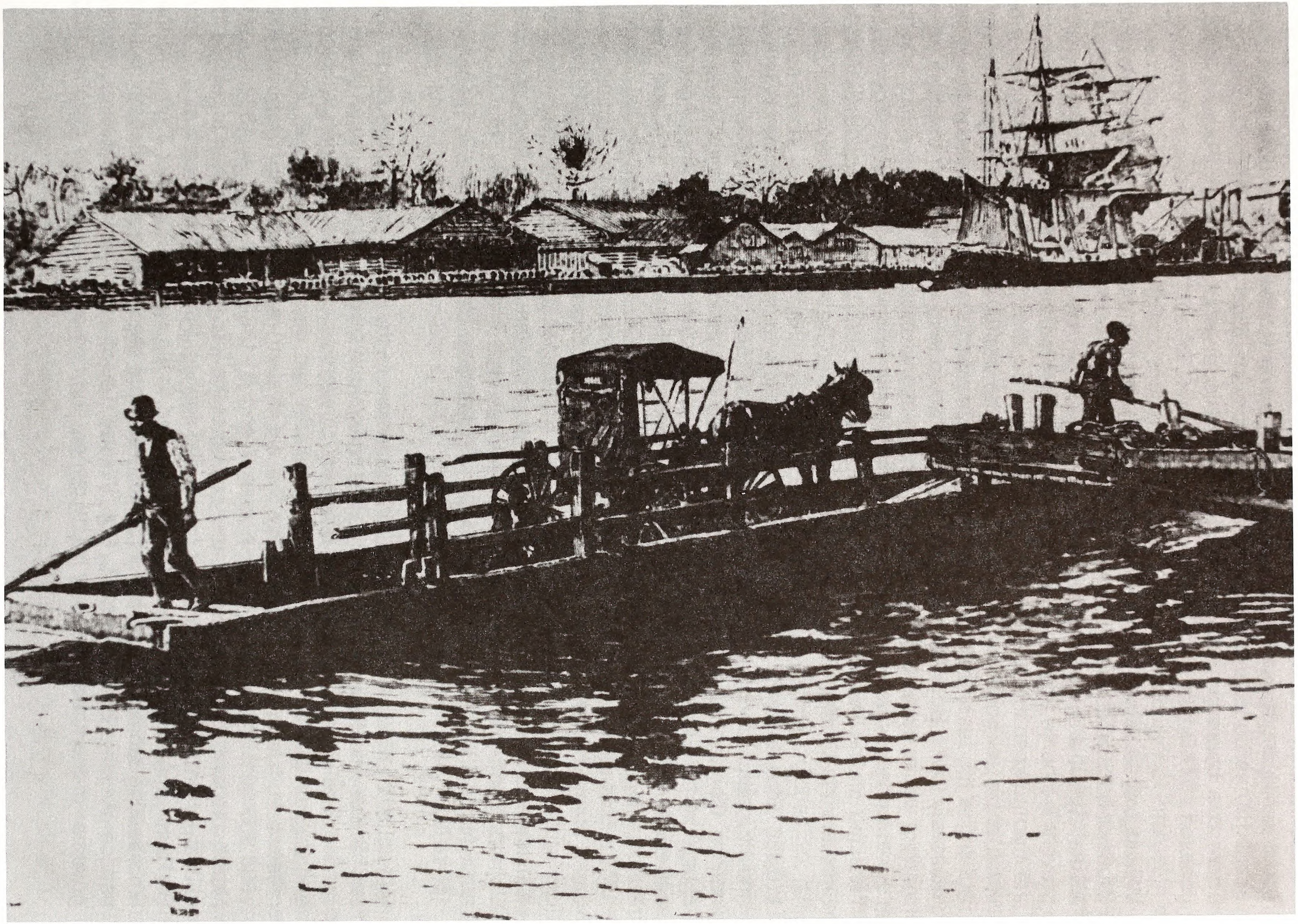

Figure 24. Illustration of Market Street Ferry.

dismal, swampy Island (which seems to be a Haunt for Herons & Turkey Buzzards) of about a mile and a quarter wide, cross a Ferry over Northwest River [Brunswick River] about 150 yards wide and lodged, not far from the Bank of it, at Mrs. Eagan's. . . . There is a causeway across the Island, but it is in very bad order" (Reaves 1988:7; Johnson 1977:9-16).

Wilmington travelers heading west or south to one of the plantations along the Brunswick River or farther inland drove their carriage down the incline at the foot of Market Street and on to a flatboat. "A bar would be raised at the front of the craft to prevent the horse from going into the river and likewise another bar would be raised on the stern to keep the vehicle from rolling backwards; the negro boatman would take his place in his rowboat and the journey across the swiftly flowing river was underway." Arriving at the far shore the traveler and vehicle would then proceed across the muddy causeway to the Brunswick River where they would take another ferry, this time pulled along a cable across the river. For the privilege of crossing the two rivers and the causeway they were charged the sum of one dollar and twenty-five cents. The toll was collected on the Wilmington side of the river (Hall 1980:390; Wilmington Star-News, February 10, 1935).

In 1856 John A. Taylor of Wilmington purchased the ferry service between Wilmington and Brunswick County from Martin Schulken for $7,500. Taylor later willed the ferry to his son, Col. John D. Taylor. During the Federal occupation, major James Reilly was in charge of the Market Street ferry. When he was made superintendent of the trolley system in 1873, he gave the day-to-day management of the ferry to Capt. Walter Furlong (Wilmington Star, May 4, 1873; Wilmington Tri-Weekly Commercial, June 5, 1856). That same year Col. John D. Taylor recommended to the county commissioners that a bridge be built over the Brunswick River. The commissioners approved the plan on September 25, 1873 (Wilmington Star, September 2, 1873). The commissioners subsequently followed that action by incorporating the Brunswick Bridge and Ferry Company and giving it the right to build bridges and charge tolls. Col. John D. Taylor became the first president of the company (Wilmington Star, September 2, 1873, March 19, 1874).

In August 2, 1882, M. H. Rouse, then the lessee of the ferries across the Cape Fear and Brunswick Rivers, placed the first steam-powered ferry, *Little May*, briefly in service. The small steamer towed a flat and conveyed passengers between Wilmington and Eagles Island. The *Little May* operated for two days as a ferry boat until it was relieved from duty and replaced by the old system of ferriage with rowboats (Hall 1980:390-391; Wilmington Star, August 3 and 5, 1882). By October 1883 Eugene Maffitt assumed Rouse's lease and operation of the ferry. Maffitt intended to rebuild the causeway and repair the ferry flat to improve service. Following the death of Col. John D. Taylor, the management of the ferry passed to his son, Col. Walker Taylor. At that time, waiting rooms for both blacks and whites were erected and a new flatboat put into service by Mrs. E. S. Tennent, Col. Walker Taylor, and Daniel L. Russell, former governor of the state, who now jointly owned and operated the ferry. In October 1892

Bryan Russell, brother of D. L. Russell Jr., came to Wilmington to assume charge of the Market Street Ferry. In 1897 the new ferryboat *Virginia Taylor*, named in honor of the daughter of Col. Walker Taylor, was making trips across the Cape Fear. The *Virginia Taylor* was constructed from four different types of wood and could accommodate twenty-five passengers. Most of Daniel Russell's stock in the corporation passed into the hands of the Cumming family following his death, while the additional interest in the Brunswick Bridge and Ferry Company owned by Tennent and Taylor was purchased on February 4, 1901, by D. L. Gore (Wilmington Star, October 24, 1883, October 19, 1897; Wilmington Messenger, October 1, 1892; Hall 1980:391; Sanborn 1889:9,14; 1893:22; 1898:31; 1904:31; 1910:31 and 1915:48).

Gore, who now owned three-quarters of the stock in the company, set about to make extensive improvements at the ferry terminal on Eagles Island just prior to the turn of the century. The company constructed new frame buildings with metal roofs as required by a Wilmington ordinance to prevent sparks from passing steamers from igniting the structures. One new device also installed at the ferry terminal was an electric call bell. One push on the electric bell called a boat, two pushes called a flat. Tolls for the Brunswick Bridge and Ferry Company were now three cents a wheel on vehicles and three cents a head on man or animal (Wilmington Messenger, October 10, 1896, August 23, 1900; Wilmington Dispatch, March 29, 1898, February 26, 1900). On November 6, 1901, O. A. Durant became connected with the ferry company, which was deeply in debt, partially from the cost of the improvements. Under an agreement between Brunswick and New Hanover Counties Durant owned a one-third interest in the line and New Hanover County the remainder. Under his direction it became a paying business, the debt was removed, and a profit was shown. Early attempts were made using naptha-powered launches for the ferry, but they proved inefficient for the duties and were replaced by self-powered flats. In September 1907 a small gasoline-powered ferry was placed into service between Market Street and Eagles Island. The vessel could accommodate only fifteen to twenty passengers but had the advantages of towing flats efficiently across the river. The ferry measured 30 feet in length and 8 feet in beam and was equipped with a 12-horsepower engine (Hall 1980:391; Wilmington Star, May 13, 1891, September 6, 1907; Wilmington Star-News, February 10, 1935).

D. L. Gore and the company sold the rights to the ferry to the New Hanover-Brunswick Ferry Commission in 1919 for the sum of $24,000. New Hanover paid two-thirds of the cost and Brunswick County one-third. Included in the purchase were the causeway, two gasoline-powered boats, two flats, and a stable and shed on the island. Modern ferry slips were soon thereafter dredged by the Corps of Engineers at the eastern and western terminals. On June 7, 1920, the ferry commission placed into service the *John Knox*, a gasoline-powered ferryboat **(Figure 25)**. The newly built 80-foot vessel was named for the Brunswick County commissioner who had encouraged the idea of a joint county ferry system. On its early runs before the Eagles Island causeway was opened, the *John Knox* took two hours to travel between Wilmington and the Brunswick River Bridge. The first crossing between Market Street and the eastern end of the causeway on Eagles Island was made on October 25, 1920. By December the ferry was making

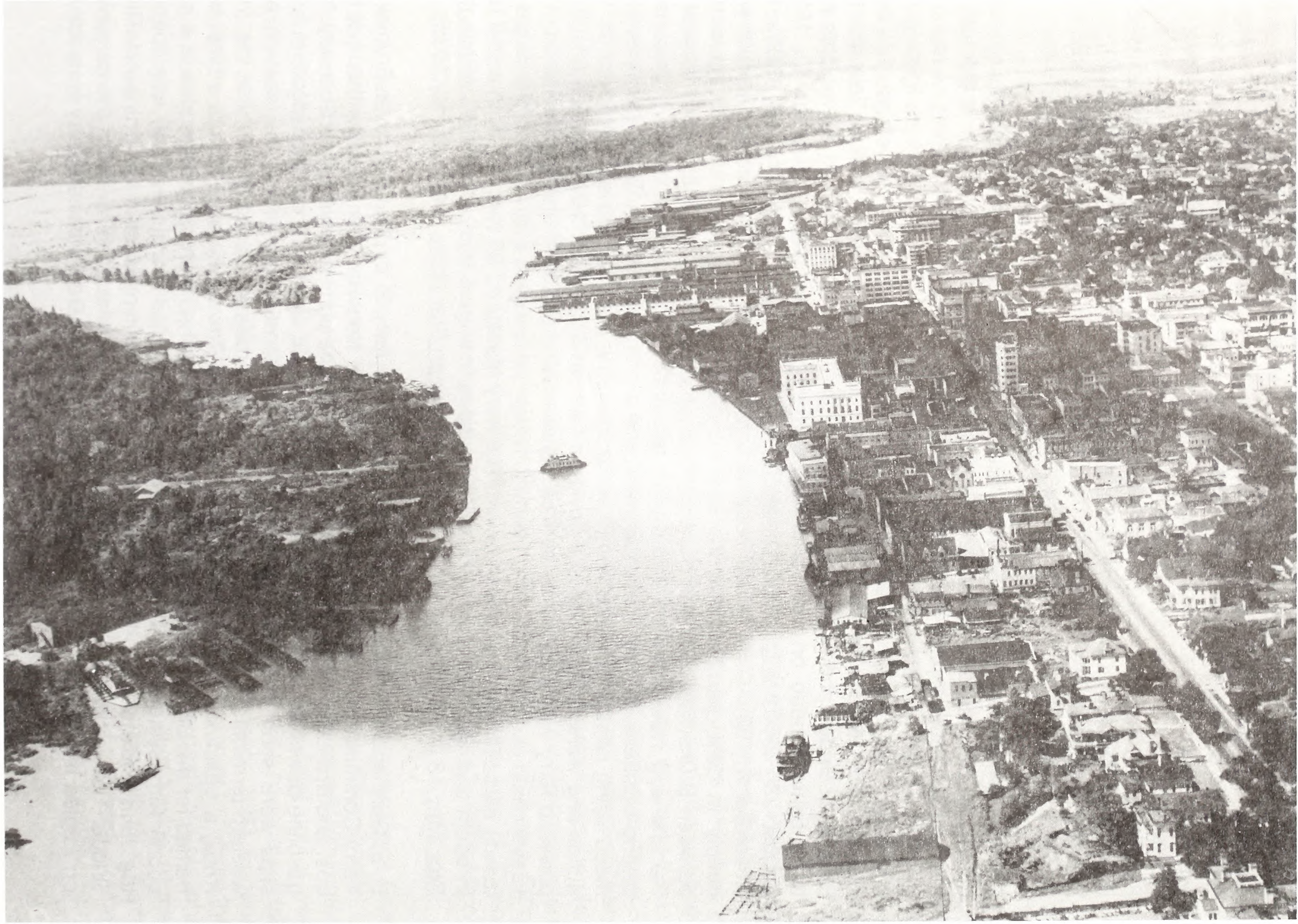

Figure 25. Photograph of ferry *John Knox* at Wilmington.

thirty-minute round trips between the city and the island, with prospects of reducing the two-way passage down to twenty minutes (Wilmington Star, October 25, 1920, December 31, 1920).

The volume of traffic crossing the Cape Fear River and the success of the *John Knox* ferry prompted the ferry commission to acquire a second ferryboat by the spring of 1924. The county also purchased the 203-ton *Menantic*, a much larger craft at 98 feet in length and originally a steam paddleboat and also placed it into service within a few months after modifying the boat and enlarging the vessel's slip. The *Menantic*, although larger than the *John Knox,* was much older, having been built in 1893, twenty-seven years before its companion ferry was constructed. Both ferries maintained a continual service across the river, except during certain times in the winter when one ferry was sufficient or when a vessel was occasionally removed from duty for maintenance or repairs. On December 1, 1927, the ferry system implemented a toll reduction. The rate was then 15 cents for cars, 25 cents for light trucks, and 40 cents for heavy trucks (Hall 1980:391-394; UAU Site files; Wilmington Star, March 15, May 3, 27, 1924, November 8, 1927).

To further accommodate the growth of Wilmington, a bridge system across the Northeast Cape Fear and Cape Fear Rivers was proposed. The construction of two bridges was eventually agreed upon by the counties, and in 1929 twin state-operated toll bridges were completed across the rivers from Wilmington to Eagles Island. A similar modern bridge had been completed across the Brunswick River in 1923. The new twin bridges might have meant an immediate end to the ferry system, but the Brunswick County commissioners voted to maintain the ferry service on a reduced scale. Only the *John Knox* was needed for the passage to Eagles Island, and the *Menantic* was sold to George G. Dodge of Elizabeth City in May 1933 for $2,500, a fraction of its original cost. The need for the Market Street ferry finally came to an end at 1:15 P.M. on February 6, 1935, when the tolls for the twin bridges were abolished. The ferryboat *John Knox* was sold in May 1936 to the R. R. Stone Company. In June 1937 the *John Knox* caught on a piling at Eagles Island and sank (Hall 1980:391-394; Wilmington Star, March 15, May 27, 1924, November 8, 1927, November 5, 1929, March 4, 1930, May 23, 1933; Wilmington Star-News, February 10, 1935, May 5, 1936; UAU files; Anonymous 1892; Pilcher 1911; USACOE 1922, 1927, 1937c).

Point Peter Ferry (Negro Head Point Ferry)

A ferry from Wilmington to Point Peter (then called Negro Head Point), at the confluence of the Northeast and Northwest branches of the Cape Fear River, was known to have been in operation before 1754. In that year Wilmington citizens petitioned Gov. Arthur Dobbs to help them obtain roads at two ferries across from Wilmington. In their December 1754 petition they refer to the Point Ferry and the Mount Misery Ferry as having been established "some time ago" by New Hanover County courts:

> To His Excellency Arthur Dobbs Esq., Captain General Governor and Commander in Chief in and over his Majesty's Province of North Carolina, the Honorable Member of his Majesty's Council and Members of the Subscribers sheweth that the Court of New Hanover County having some time ago appointed a ferry from the Town of Wilmington to the Point of Marsh at the mouth of the Thoroughfare, also another at a place called Mount Misery on the North West branch of the Cape Fear River and the committees of the several districts have neglected and refused to cause roads to be made to the same, to the great detriment of all travellers and also the Inhabitants of New Hanover and the Upper Counties. We therefore pray that a law be passed to oblige the committees of the several districts adjoining the said ferries to cause suficient roads to be made the same (Colonial Records, 5:164).

On February 1, 1759, a Mrs. Bethelly was appointed to keep the ferry from the town to the point, both ways, and provide two boats and two hands. In June 1760 Francis Lynaugh petitioned the court to keep the ferry to the point. The bond issued to Lynaugh provided for one good flat, two canoes immediately, and another flat by next court. On January 9, 1772, however, the New Hanover County court authorized its clerk to advertise in the local Wilmington newspaper, Cape Fear Mercury, for ferry keepers at the point opposite Wilmington and at Mount Misery. On April 4, 1775, the court finally appointed "Timothy Bloodworth to keep the ferries between Wilmington and Negro Head Point both ways, subject to a bond of £100, to keep the ferries well attended, and to provide good and sufficient boats and flats for the transportation of the passengers." The fees in 1775 for crossing the Cape Fear River were set at 12 cents for a foot passenger and 24 cents for a man and horse. By 1791 those fees had been greatly reduced to 4 cents and 8 cents respectively (New Hanover County Court Minutes, 1759-1760, 1775; Hall 1980:389-390).

The ferry apparently was in little use during the American Revolution, although one 1781 map of the Wilmington vicinity does show what may be the old "Ferry" house near the end of the point (Anonymous 1781). The New Hanover County Court again brought the ferry back to service when on October 7, 1786, it ordered and empowered Peter Mallett to operate a ferry from the old landing at Negro Head Point to Maltsby's Landing in Wilmington. John Maultsby was the owner of several acres near the river south of Smith Creek during the 1730s (New Hanover County Deeds, Book YY-142; AB-161; 3-335; McKoy 1973:32). At the same time, the court also ordered that the old road on Negro Head Point to the former landing be repaired and that both ferry landings be at the same place. It granted Peter Mallett permission to operate the ferry, provided he agreed:

> That he shall at his own expense make a good road from Negro Head Point to the first sandhill within nine months and keep it in repair; during the time he shall keep the said ferry and in the mean time shall keep a ferry from the landing nearest the old one to the aforesaid landing in town

> and keep the road good and passable for travellers to the sandhill; and shall further perform the duty of a public ferry-keeper according to law (New Hanover County Court Minutes, 1786).

The ferry is again referenced in the early nineteenth century in the Memoirs of Gen. Joseph Gardner Swift. The general accounts a trip to Wilmington during the summer of 1805: "Proceeding by the right bank of the Cape Fear River to Negro Head Point ferry, opposite Wilmington, I arrived at Mrs. Meeks' boarding-house in that town on June 17, 1805 . . . (Sprunt 1992:134)."

Although General Swift did not indicate the type of crossing at the "Negro Head Point Ferry," the vessel must have been similar to the one in use farther down the Cape Fear at Market Street, a flat rowed or pulled across the river. The ferry at Negro Head Point was again briefly mentioned in 1814 when the adjoining property was sold. After that date no other sources are known to refer to the ferry, making it at least likely that it was discontinued about that time (New Hanover County Deeds, Book P:116).

Fort Fisher/Southport Ferry

The Fort Fisher and Southport Ferry began operation in February 1966 across the lower Cape Fear River. The modern vehicle and passenger ferry crosses the river between the southern tip of Federal Point one-half mile below the fort to the Price's Creek terminal 2 miles above Southport. The previous year ferry slips and entrance channels were dredged to accommodate the ferry. A dredge from the Atkinson Dredging Company was employed to deepen the river near the respective terminals. Right-of-ways and parking areas were cleared by the state Highway Department prior to construction of ticket/office facilities on either side of the river by Wannamaker and Wells Inc. In 1986 a second ferry was added to accommodate the steadily increasing vehicular and passenger traffic. The two open double-end ferries currently operating between Fort Fisher and Southport are the M/V *Governor Daniel Russell*, with thirty-four-car capacity, and the M/V *Sandy Graham*, with a twenty-four-car capacity. Other ferries have been occasionally utilized while one of the regular boats is temporarily out of service for annual maintenance or repairs. The two ferries operate from the opposite sides of the river on an one hour schedule during the summer and a two-hour schedule during the winter months. Approximate crossing time during suitable weather is thirty minutes. Current rates for one-way passage are 50 cents for a pedestrian, one dollar for a bicycle and rider, and three dollars for a single vehicle (Wilmington Star, June 23, July 2, 1965, September 7, 1986; Hall 1980:394; USGS 1979a; NOAA 1992).

Southport/Bald Head Island Ferry

The Southport and Bald Head Island passenger ferry began service in 1976 with the *Bald Head I*, designed and built from the hull of an old LCM-6 military craft by Capt. Herman Sellers, a former ship pilot. In January 1984 the *Bald Head I* was replaced by the *Adventure*, capable of carrying forty-six passengers, twelve more than the older boat. The *Bald Head I* was removed from service to transport construction workers to the island. The *Adventure* currently makes several trips daily between the two points, and an excessive fare is charged. Crossing time is approximately fifteen minutes each way (Wright 1987: 279-281; Coastal Carolinian January 19, 1984).

Hilton Bridges (Northeast Cape Fear River)

On December 7, 1831, the Wilmington Advertiser advocated the construction of a bridge across the Northeast Cape Fear River "for the double purpose of a bridge and ferry." Local sentiment supported the idea, and a bridge was constructed by at least 1837, although no indication of a ferry occurred until several years later. In April 1838 James Cassidey had taken a contract for "rebuilding the bridge" across the Northeast Cape Fear river between Point Peter and Hilton. Later accounts indicated that the bridge was built of stone with high arches. By August 1838 the bridge was reported to be passable once again. That same year rates for passage across the bridge ranged from 4 cents for a foot passenger to 50 cents for a wagon with four horses. The Hilton bridge was once again in need of repair by 1840. In late October, a section of the bridge had "fallen down," making it again impassable (Wilmington Advertiser, April 27, August 3, September 7, December 7, 1831; Wilmington Chronicle, October 21, 1840; Reaves file). Nearly one year later the bridge still had not been repaired, prompting a local newspaper to run the following plea: "Is there to be no effort made to rebuild Hilton bridge? It must be the business of somebody to keep it up, and the business of somebody to see that it is kept up. Wilmington is much interested in the matter, as well as a large extent of country" (Wilmington Chronicle, October 6, 1841).

The cry to repair the Hilton bridge did not go unanswered, and the structure was once again rebuilt and opened to travel by June 1842. This time the Hilton bridge remained operational until September 1851, when an unattended drift flat struck the bridge and carried away five or six arches, about one-fourth of the bridge's length. More than three years later, in early 1855, the Hilton bridge was finally repaired by the contractors Stone & McDowell at a cost of $9,000. Before the bridge could be reopened, stone piers up to the low-water mark were replaced. Later sources suggest that when the structure was rebuilt, it was constructed as a railroad bridge instead of a pedestrian bridge. With the loss of the bridge for vehicle and passenger traffic, the main means of transportation across the Northeast Cape Fear River reverted to ferry service. A ferry at Hilton was known to be in operation by 1864. The railroad bridge was still in operation in 1858 when Joseph P. Richards was appointed overseer of Negro Head Road "near the Hilton Bridge." The ill-fated Hilton Bridge was again destroyed in 1865, this time intentionally, at the hands of the retreating Confederate forces prior to the fall of Wilmington (New Hanover County, Road, River, and Ferry Papers, 1798-1869; Wilmington Chronicle, June 22, 1842; Wilmington Daily Journal, September 9, 1851; Wilmington Herald, February 23, 1855, January 12, March 18, 1869; CSAE 1864).

Following the Civil War the Wilmington Railway Bridge Company undertook the immense task of rebuilding the destroyed Hilton Railroad Bridge. A "mere temporary structure" had been in place since the end of the war, but in early 1868 supplies were being delivered up the river to the construction site of a new railroad bridge. Among the arriving materials were "a large quantity of iron framework . . . and two large wrought-iron pieces for the drawbridge." When reporters from a local newspaper paid a visit to the bridge under construction, they wrote the following description of the structure:

> The cylinders have been lowered to their places and all except one, which they are now working on, filled up with rock cemented with concrete preparation which has the property of hardening itself into a granite mass. The first span which measures 147 feet from the abutment on the East side, to the cylinders, is nearly completed. There are to be three spans, the third one being divided by the large single cylinder upon which works the draw. Vessels can pass on either side of this cylinder, the section of the bridge from the abutment on the West side to the first two cylinders, swinging around on the large single cylinder as upon a pivot (Wilmington Star, February 4, 1868).

On March 18, 1869, the drawbridge construction ended, although some work still remained to finish the "bridge proper." The Wilmington company built a second railroad bridge across the Northwest branch of the Cape Fear River near Navassa to continue the line from the city. Supervision of the two bridges was later divided between the superintendents of the Wilmington, Columbia and Augusta Railroad and the Wilmington, Charlotte and Rutherford Railroad on an alternating six-month schedule (Wilmington Star, February 29, May 3, 1868, April 26, 1871).

The Hilton ferry operated immediately adjacent to the south side of the "old bridge piers," as shown on an 1885 map by the U.S. Army Corps of Engineers. The map clearly indicates the location of the pre-Civil War bridge, as the latest Hilton Railroad bridge was shown 900 feet farther upstream. Two years later steamboat men on the Northeast Cape Fear River complained that navigation was impeded and rendered dangerous by a submerged stone crib on the west side of the river just below the railroad bridge at Hilton. The stone crib formed part of a pier that supported the older railroad bridge (USACOE 1885; Wilmington Star, November 6, 1887). As the volume and weight of the rail traffic over the bridges increased, the management of the Wilmington Railway and Bridge Company deemed it necessary to "renew the bridges over the Cape Fear river at the Navassa works and at Hilton over the North East river." The Navassa railroad bridge was the first to undergo changes in 1888, followed by the Hilton bridge-also "built to the same plan." A detailed description of the improvements to the Navassa bridge was provided:

> The total length of this bridge is two hundred and sixteen feet between centres of end piers, and the height thirty-two feet from centre to centre of chords, and seventeen feet from centre to centre of trusses. The top chord and end posts are composed of plates and angle-irons made into rectangular column, 26x20 inches. The bridge consists of nine panels

> twenty-four feet each. All the eye-bars are made of mild steel and all the other material is of wrought iron, there being no cast iron allowed in the specifications whatever, and no wood, excepting the cross ties -- every precaution having been taken to make the structure firm and durable (Wilmington Star, May 5, 1888).

For the next ten years the improvements to the Hilton bridge apparently met the needs of the railroad traffic. On August, 21, 1898, a new "through Pratt truss," capable of handling 90-ton engines with ease, replaced the old iron draw. The old draw required two or three men to operate it, whereas the new type needed only one, in as little as three minutes. This was a marked improvement for accommodating vessels traveling up and down the Northeast River. On a high tide the new truss draw was lifted and secured into place from four lighters placed under the bridge. The change was accomplished on a Sunday afternoon with only a minimal delay to two trains using the bridge. In April 1910 the local Pilots Association petitioned Capt. Earle I. Brown of the U.S. Army Corps of Engineers to have the width of the draw on the two bridges owned by the Wilmington Bridge Company expanded from 60 to 80 feet. Approval of the petition submitted by the pilots to widen the Navassa railroad bridge draw, came the following year but only for alterations in the fenders at the Hilton railroad bridge (Wilmington Star, August 19, 1898, July 25, 1911; Wilmington Dispatch, August 22, 1898, April 29, September 16, 1910).

The decision by the Corps not to expand the width of the draw at the Hilton bridge may have led to a costly consequence a few years later. On January 7, 1914, the British steamer *Cromwell*, while under tow from the tug *Gladiator*, rammed and knocked down a section of the Hilton bridge. After the tug had successfully passed through the draw, the steamer swung wide and missed the opening in the bridge and rammed its prow into a fixed span on the east side of the draw. According to the pilot on board the *Cromwell*, the "Hilton bridge has always been a hard one to make, on account of the angle. The depth there is 17 or 18 feet, and the *Cromwell* was drawing 16 feet." Repairs were undertaken with all possible haste on the damaged railroad bridge with as little delay as required to rail traffic. Upwards of one hundred men worked on the repairs during day and night shifts. The Hilton bridge reopened to trains within a week (Wilmington Dispatch, January 7, 8, 10, 13, 14, April 20, 1914).

The January 1914 collision prompted the U.S. district engineer and the Wilmington Bridge Company to recommend to the War Department in April that the 58-foot draw on the Hilton railroad bridge be replaced with a new 100-foot lift draw. The War Department approved the plans for a new draw early the following year. The Virginia Bridge and Iron Works received the new construction contract for a rolling lift-type draw that afforded an opening of 95 feet between fenders. The Bascule improvement, which could accommodate two vessels through at once, commenced in June 1915 and was completed by the following July. The new draw, erected at the location of the 1914 collision, afforded a 100-foot clearance. The old draw was quickly replaced with two new spans (Wilmington Dispatch, January 7, 8, 10, 13, 14, April 20, 1914, February 19, 1915, July 6, 1916).

The 1916 Hilton railroad bridge continued to accommodate rail traffic for the next fifty-five years. As early as 1960 a group of Wilmington developers known as the Committee of 100 had voiced the opinion that the Hilton railroad bridge was retarding industrial growth on the river above Wilmington. The major factor in the limited growth was the narrow span of 95 feet for the draw. In July 1961 David R. Murchison, then chairman of the Committee of 100, officially called for the replacement of the Hilton railroad span after it was once again struck by a ship and put out of commission for several months. After years of having the project delayed because of hearings, transfer of bridge administration, and financial limitations, a contract was finally awarded in January 1971 to the McLean Contracting Company of Baltimore at a price of nearly four million dollars. The present Hilton railroad bridge, termed a "rolling lift bascule bridge," has a horizontal clearance of 200 feet between fenders and unlimited vertical clearance. The Corps of Engineers reduced the possibility that ships might collide with the bridge by completing channel alignments and deepening the river near the bridge (Wilmington Star, January 28 and February 17, 1971).

Twin Bridges

Prior to the completion of bridges over the Cape Fear River and Northeast Cape Fear River, all traffic to the western part of the state and to South Carolina made the crossing by means of a ferry. Wilmington inhabitants had not enjoyed the benefits of a pedestrian bridge across the river since the Hilton bridge used during the mid-nineteenth century. A plan in the early 1920s for a lift-span bridge to be built across the river from the foot of either Ann or Dock Streets was never implemented because of opposition by some of the local citizens to the proposed downtown location. Within a few years, however, an alternative route for a new Wilmington bridge was recommended and approved by the commission, with the cost of the bridges being financed by the sale of bonds. The new project called for the construction of two bridges-one from the foot of Parsley Street in the northern part of the city across to western shore of the Northeast Cape Fear River above Point Peter and another across the Northwest branch of the Cape Fear River. A causeway connected the two bridges. In 1928 two out-of-state contractors, Merritt, Chapman & Scott, Inc. of New York City, and the Vincennes Bridge Company of Vincennes, Indiana, were hired by the state Highway Commission to build the bridges at Wilmington at a cost of nearly $1.25 million dollars. The Merritt company was responsible for construction of the substructure, while the Vincennes company completed the superstructure. Construction began on the Northeast River bridge on May 10, 1928, with the driving of the pilings by the Merritt company. The pilings were driven west of the railroad tracks at the foot of Parsley Street and extended out to the water's edge (USACOE 1922; Wilmington Star, March 21, May 11, 1928; Wilmington Star-News, February 10, 1935).

The twin bridges, as they were referred to, incorporated two bascule spans of iron and concrete, 185 feet in length, and four bascule piers with a fender system. Each bridge was 2,036 feet in length and employed a central double-leaf draw above the river channel. The Cape Fear bridge provided an 185-foot clear draw, and the Northeast Cape Fear an 124-foot opening for ships. Hidden counterweights raised and lowered the huge leaves. A causeway of nearly a half-mile in length was built above Point Peter to connect the two. Tolls were collected on the bridge until the cost of construction and the interest on the bonds was paid, after which the toll was removed and the bridge maintained as a part of the state highway system. When the bridges opened in 1929 the toll was 25 cents, including passengers for automobiles, 5 cents for pedestrians walking or on a bicycle, and up to 75 cents for large trucks. The cost of the bridges was finally recouped in early 1935 and the toll abolished. The same day that the tolls were removed, the historic *John Knox* ferry ended its limited service (Wilmington Star, March 1, 21, 1928, December 8, 1929; Wilmington Star-News, February 10, 1935).

The twin bridges were officially dedicated and opened by Gov. O. Max Gardner as part of a major event on December 10, 1929. A bronze plaque, dedicated to war veterans, was attached to a huge boulder at the northern approach to the bridge at the foot of Third Street. In addition, a small plaza, complete with three War of 1812 cannon and a Civil War cannonball, was permanently established near the approach. By the time the tolls were removed in 1935, nearly two million vehicles had passed over the twin bridges. On October 18, 1978, the old twin bridge was closed to traffic and prepared for demolition by the Michael Construction Company. The last ship to pass between the draw of the old bridge was the *Stolt Lion* loaded with 18,100 tons of fertilizer bound for Europe. The Northeast Cape Fear River bridge lasted until 1979, when it was replaced by a new four-lane structure later named the Isabel S. Holmes Bridge. The Northwest Cape Fear River bridge was replaced in 1984 and named for S. Thomas Rhodes (Wilmington Star, November 21 1929, December 5, 8, 1929, October 18, 1978, August 21, 1982, November 23, 1984; Wilmington News, February 21, 1935).

Cape Fear Memorial Bridge

The first bridge to be constructed at Wilmington since the twin bridges in 1929 over the Cape Fear and Northeast Cape Fear River was the Cape Fear Memorial Bridge, located near the foot of Dawson and Wooster Streets. Construction on the Cape Fear Memorial Bridge began in 1966 when concrete was poured for the east tower pier of the new bridge by the Diamond Construction Company. Large concrete piles, or elevator towers, mark both sides of the main channel, from which a 400-foot lift span is electrically raised in less than one minute to allow river traffic to pass underneath. Both towers were completed by May 1968, and the steel lift span was put in place in February 1969 by the American Bridge Co., a subsidiary of United States Steel. This method of construction was markedly different from the hinged draws previously used on the twin bridges (Wilmington Star, December 16, 1966, January 28, May 11, September 2, 1968, February 14, 20, 23, 26, 1969).

From each shore of the river a long roadway rises toward the central lift span. The elevated roadway is supported by twin columns capped by a crossbeam. Construction of the support piers and roadway was completed in early 1969 by the Bowers Construction Company and Inland Bridge Company. Tons of mud and organic soil had to be dug away from the Brunswick County swampland to make way for the approach. Long trenches, or canals, created by the dredging had to be filled with sand. After months of construction the Cape Fear Memorial Bridge was finally finished and officially dedicated in September 1969. The new bridge greatly reduced the volume of traffic across the dangerous older bridges. At a cost of more than sixteen million dollars, the new four-lane bridge now carries traffic from five highways; U.S. 17, 117, 421, 74 and 76 (Wilmington Star, December 16, 1966, January 28, May 11, September 2, 1968, February 14, 20, 23, 26, August 6, 1969).

Northeast Cape Fear River Bridge (Isabel S. Holmes Bridge)

By the 1970s the twin bridges across the Northeast Cape Fear and Cape Fear Rivers were nearly fifty years old and required considerable maintenance. The two-lane Northeast Cape Fear River bridge for U.S. 117 had undergone extensive repairs in 1970, yet these were only short-term changes for the aging structure. Some of the bridge's exposed supports were badly rusted and beyond repair. The North Carolina State Highway Commission, aware of these major problems, authorized in 1971 the construction of a new four-lane bridge over the Northeast Cape Fear River at Wilmington. This bridge would also relieve some of the heavy volume of traffic using the new Cape Fear Memorial Bridge. The proposed bascule-span drawbridge was originally given the state's highest priority, with the other twin bridge over the Cape Fear River receiving the second priority. By 1974 ten other bridges in the state had received higher priorities from the Department of Transportation and the construction of the Northeast Cape Fear River bridge was placed on hold. It was during that time that a local Wilmington woman, Mrs. Isabel Holmes, serving as deputy secretary of the Department of Transportation, began promoting the construction of a new bridge in her hometown (Wilmington Star, September 3, 1971, February 8, July 16, 1974).

The efforts of Mrs. Holmes, along with the necessity of replacing the deteriorating bridge, led the state Board of Transportation to allocate nineteen million dollars in October 1976 for the construction of a replacement bridge across the Northeast Cape Fear River. A contract for the project was awarded the following April to the Michael Construction Company of Chattanooga, Tennessee, for 13.9 million dollars. Construction began during the summer of 1977 on the new four-lane bridge of steel and concrete. The bridge has a length of 2,306 feet, and a 64-foot-high bascule draw accommodates river traffic through a 200-foot-wide channel. The length of the two-sectional movable draw is 250 feet, and in its closed position the draw provides a 40-foot clearance. The new bridge was built 100 feet north of the old two-lane bridge and joins U.S. 117 and N.C. 133 on the east side of the river and an intersection with U.S. 421 on the west. The first traffic rolled across the new Northeast Cape Fear River bridge on January 18, 1980, and was officially dedicated by Gov. Jim Hunt the following month. In March 1988 Gov. Jim Martin rededicated the newly renamed Isabel S. Holmes bridge in honor of the late Wilmington native, who persuaded the state to fund the replacement of the old Northeast Cape Fear River Bridge (Wilmington Star, October 12, 1976, March 30, April 6, April 13, 1977, October 18, 1978, February 30, 1980).

Quarantine Stations

In the decade preceding the Civil War the sanitary regulations of the port of Wilmington were under the control of the Commissioners of Navigation and Pilotage who established quarantine stations on the river **(Figures 18,19,20,21)**. When the Civil War began, however, the quarantine laws that applied to the port of Wilmington were waived because supplies and food were desperately needed by soldiers and civilians. As a result of the waiving of quarantine regulations, an epidemic of yellow fever began with the arrival of the steamer *Kate*, a blockade-runner from Nassau. After slipping by the Federal blockade, the *Kate* entered the Cape Fear River loaded with bacon and other food supplies and anchored at the foot of Market Street. In the absence of a sufficient quarantine practice the infectious disease spread to the inhabitants of the town, resulting in a great loss of life before it was finally brought under control several weeks later. As a result of an outbreak of yellow fever in Wilmington, health authorities implemented improvements in quarantine regulations. By 1864 all vessels bound for Wilmington were required to stop at Fort Anderson, on the site of old Brunswick Town, for inspection (Wilmington Star, April 4, 1878; C. P. Bolles Papers; South 1960:80).

Following the war, quarantine regulations for the civilian trade briefly came under the jurisdiction of the quarantine medical officer, while the military continued to enforce its own policies. Under provisions stated in "An act for the preservation of the public health, by establishing suitable Quarantine regulations for the Port of Wilmington, N.C." (1868), notice concerning inspection and or quarantine of vessels possibly carring infectious diseases was given to pilots, masters, and owners of vessels. The act called for the establishment of a quarantine station "opposite Deep Water Point, near the mouth of the Cape Fear River . . ." and the appointment of a physician by the governor. At the nearest convenient station upon the shore, a hospital was to be built for the sick removed from restricted vessels (Wilmington Star, April 3, 1878; Brown 1973:28).

All vessels from ports south of Cape Fear had to stop at the station near Deep Water Point for inspection by the quarantine physician and be "quarantined for fifteen days, and thoroughly fumigated." A fee of five dollars was required of each ship inspected; for every sick person taken to the hospital from a quarantined vessel, a fee not exceeding three dollars a day" was charged (Wilmington Star, May, 20, 1868, August 29, 1868, April 3, 1878). Any vessel that knew it had a sickness on board was required to stop at the station regardless of the port from which it sailed. Any ships to which the above regulations did not apply could proceed directly to Wilmington without detention (Wilmington Star, August 29, 1868).

Under military General Orders issued for the district, quarantine regulations stated that "All vessels coming directly, or indirectly, from a port where any infection exists, are required to remain in quartine [sic] as long as the quarantine officer shall think necessary." The military assumed the control of all quarantine regulations and established quarantine stations at Fort Caswell and Fort Fisher. It was required that the quarantine ground be as near Smith's Island and Bald Head as the depth of water would allow for arriving ships. A quarantine hospital, storehouse, and trading post were established on the beach about 2 miles from Fort Caswell (Wilmington Star, April 12, 1868).

In 1869 a quarantine station was built at Pine Creek (probably Price's Creek) upon a tract of two acres at a cost of two thousand dollars (Yearns 1969:572). The following year an amendment to the quarantine health act was ratified; the amendment created a Board of Quarantine for the Port of Wilmington. The board consisted of "the Board of Navigation and Pilotage, the Quarantine Medical Officer and the Quarantine Commissioners, whose duty it shall be to make such rules and regulations as may be necessary to protect the inhabitants from infectious diseases, and for the government of the Hospital at Deep Water Point . . ." (Wilmington Star, March 20, 1870).

An editorial by Dr. Walter G. Curtis, the quarantine physician, that appeared in the Wilmington Star in 1878 praised the success of the quarantine station. The physician stated: "I believe it can be confidently asserted that Wilmington is one of the healthiest cities on the Atlantic Coast. Yellow fever has visited that city but once in thirty years. The quarantine establishment opposite Deep Water Point has intercepted it invariably since its establishment there, and kept it out of your city" (Wilmington Star, July 21, 1878).

In a March 1879 letter, Dr. Curtis reported to Gov. Thomas Jarvis that "nothing occurred of importance at this Quarantine Station." Dr. Curtis did, however, express his concerns over the continued control of vessels arriving from South American ports, where yellow fever and smallpox were prevalent. Although an occasional vessel arrived from South American ports with sickness on board, Dr. Curtis had found no shipboard cases of a contagious nature (Yearns 1969:61). Within three months Dr. Curtis was again in contact with Jarvis, stating that the health of the Port of Wilmington continued to be excellent and unaffected by ships arriving from foreign ports. The number of vessels that arrived at the port for inspection did, however, exceed the doctor's initial expectations. The policy of inspecting for infectious diseases vessels arriving from ports in South America and the West Indies continued with the approval of the Wilmington inhabitants (Yearns 1969:97, 112).

On March 31, 1882, the Quarantine Hospital at "Pine Creek" burnt. It was determined that a fire that started in the roof and was fanned by the strong winds along the river caused the destruction. The keeper and his family managed to save most of the furniture and bedding. Dr. Curtis suggested to Gov. Thomas Jarvis that a temporary quarantine station might be established at the old lighthouse at Pine Creek. With the support of Jarvis and Senator Zebulon B. Vance, a their recommendation was made to the Chief of the Lighthouse Bureau. The Bureau approved use of the old lighthouse, provided that "the property be left in as good order as when received, and that it be restored to the custody of the Light House Establishment on due notice" (Yearns 1969:572-573, 578).

The quarantine hospital may have remained located in the lighthouse for several years. In 1889 the state legislature failed to appropriate funds to improve the quarantine facilities. Plans for the selection and construction of a new quarantine hospital at the mouth of the Cape Fear River were again considered by the state in 1893-94. The state proposed $20,000 for construction of a quarantine station, provided that Wilmington would contribute $5,000 for the purpose. Wilmington could not raise its appropriate share, and the state funds were never provided (Wilmington Star, April 17, 1894). A suggestion was made by the board to petition the federal government to maintain a quarantine hospital on the Cape Fear River (Wilmington Star, May 1, 1894). With the appropriation of $35,000 by Gen. Robert Ransom under the 1894 River and Harbor Act, the U.S. government would maintain the hospital site chosen to be located near Southport. The most promising site for a new quarantine station was at White Rock, southeast of Price's Creek lighthouse. "It possessed the advantage of being fairly well protected from wind and water, did not endanger Southport, was well isolated, and it was out of the way of regular river traffic" (Wilmington Star, June 21, 1895). Bids were opened for the construction of a wharf and buildings at the new U.S. Quarantine Station. Frank Baldwin of Washington, D.C., was the lowest bidder, at $18,500; however, Baldwin was unable to complete the service in 1895 and the project was then awarded to William Peake (one of the bondsmen for Mr. Baldwin) in the amount of $8,176.66 (Wilmington Star, June 21, 1895, July 24, 1896; Brown 1973:28). The State Quarantine Station near Southport was transferred to the U.S. government on July 18, 1895. There was no charge for inspection or disinfection (Wilmington Star, July 19, 1895; Reaves 1990:48).

For the prevention of the spread of cholera, yellow fever, smallpox, typhus fever, plague, or other such infectious diseases, the following vessels were subject to the quarantine regulations:

1) All vessels, American or foreign, that had any sickness on board.
2) All vessels from foreign ports, except vessels from the Atlantic or Pacific coasts of British America, not having on board passengers or the effects of passengers not resident in America for sixty days; and except foreign vessels arriving by way of non-infected domestic ports.
3) All vessels from infected domestic ports.

Constructed on pilings located within the Cape Fear River, the new quarantine station consisted of four houses: the disinfecting house, the hospital, the attendants' quarters, and the medical officers' quarters. The quarantine complex was described as follows:

> The station has been carefully laid out on the east side of the channel of the river half way between the upper end of Battery Island and No. 4 beacon light (Price's Creek). The location is entirely in the water and the nearest point to the shore is fully a half mile. The station is one mile east of Southport. As before stated the station will be out in the water and will be constructed on a pier, the caps of which will stand ten feet above mean

> low water. The pier will be in the shape of a cross... (Wilmington Messenger, August 17, 1895).

The quarantine station pier was 600 feet in length and ran north by northwest. It was constructed on a shoal in the river with water from 18 to 20 inches in depth. The disinfecting house was constructed at the west end of the pier and included tanks for disinfectants, sulphur furnaces, a steam boiler and engine, and hose and pumps for applying the disinfectants under pressure. Vessels that required fumigation laid alongside with their hatches closed. A hose was run down into the vessel and the fumes and disinfectants forced in by steam until the ship was entirely covered. The hospital, built on the south wing of the cross pier, contained wards for the sick, a dispensary, and a kitchen. The third building, the barracks or attendants' quarters, occupied the center of the cross pier. The remaining medical officers' quarters was a two-story house on the north wing that contained an office, living apartments, kitchen, and dining room. At the east end of the pier a ballast crib was built for the deposit of ballast from quarantine vessels. Before ballast from contaminated vessels could be dumped into the crib, it had to be disinfected. From 1898 to 1928, about $75,000 was appropriated by the federal government for construction of various additions at the quarantine station. The additions included: men's quarters, 1898; quarters for detained crews, 1901; wharf, 1914; water tank, 1920; launch shelter, 1921; remodeling 1926; and extension of gangway, 1928. An artesian well, 400 feet deep, was also added to the station in 1897 (Wilmington Star, August 9, 1895; Brown 1973:29).

The United States marine hospital service tug *John M. Woodworth* arrived in November 1895 and was immediately placed under the supervision of Dr. J. M. Eager, quarantine officer, who had assumed charge of the quarantine station in June. The *Woodworth* was "an iron hull boat of 88 tons, 80 feet in length, 17 feet beam, and draws 7 feet 6 inches." The tug was designated to be used as a "boarding steamer" but was tied to the end of the quarantine pier and used as attendants' quarters until the station was completed (Wilmington Star, August 9, 1895; Wilmington Messenger, July 7, November 22, 1895). Until the new station was completed, the Cape Fear quarantine vessel served only as a boarding service, and all vessels needing fumigation or treatment were sent to another port. The quarantine station apparently continued operation until 1937, when it outlived its usefulness and was placed in a surplus status under a caretaker. It appears on several maps until that period. The station is indicated as late as 1937 on a U.S. Army Corps of Engineers map. Health services for seamen were transferred to a shore facility, located next to the Stuart house in Southport. By 1939 maps described the station as "Decommissioned." With improvements in the control of contagious diseases, a need for quarantine stations no longer existed. In 1946 the Southport station's status was changed to first class relief station. The status of the shore station again changed about 1953, when it became an outpatient office of the U.S. Public Health Service and operated as such until 1970. The abandoned quarantine station within the river was left to deteriorate. The caretaker, Charles E. Dosher, retired in 1946 and five years later-on August 19, 1951-a large part of the old quarantine station was destroyed by fire. Presently only the concrete platform for the steel tower and water tank remain (Wilmington Messenger, July 20, 1895; USACOE 1937 and 1939; Brown 1973:30).

Shipbuilding along the Lower Cape Fear River

The earliest watercraft along the lower Cape Fear River were dugout canoes, or log boats, used by the native population. The dugout canoe was commonly built from a single cypress or pine log, quite common within the coastal swamp forest. Cut from a large section of tree, the canoe was shaped by ax or adze and hollowed to its appropriate thickness by slow-burning embers. Early colonists to the region in the late seventeenth century used steel tools to adapt the dugout canoe to fit their own needs. By splitting a canoe down the middle and installing boards in the bottom, it could be enlarged. This larger version, about 4 or 5 tons, was known as the periauger and could be fitted with either masts for sails or oars for rowing. The larger of the craft were "capable of carrying forty or fifty Barrels of Pitch and Tar." Periaugers were sometimes used by the inhabitants as ferries across rivers or larger creeks (Alford 1990:29-31; Johnson 1977:11; Brickell 1737:260-261).

During the early eighteenth century, settlement of the lower Cape Fear River vicinity quickly increased as royal governors granted to various individuals large sections of land along the river and major tributaries. On these large sections of land, called plantations, crops or naval stores were often produced and transported by flat, also called a pole boat, to deepwater points, where they were loaded aboard seagoing ships. The flatboat, so named because of its flat bottom and squared sides, was larger than the earlier periaugers and built of boards. The majority of those transport vessels and small sailing craft were constructed at plantation landings. Often flats were used as ferries across major waterways. Deepwater sailing craft known as sloops gradually became the watercraft commonly used to transport products between coastal ports. Sloops were as small as 5 tons burthen, or as large as 60 to 70 tons. They had a single mast with a large gaff mainsail and one or more headsails on a bowsprit. The larger sloops were primarily used in long ocean voyages and had one or more square sails in addition to the usual fore-and-aft sails (Johnson 1977:13,15; Alford 1990:32).

Second in popularity and use after the sloop was the brigantine or brig, from 30 to 150 tons. The rig of this craft has varied with time and location. Generally, before 1720, the brigantine has been described as being a two-masted vessel, square-rigged on the foremast, fore-and-aft rigged on the main, but also with a square topsail. After 1720, the main square topsail was omitted in most brigantines. Other vessel types in use during the late seventeenth and eighteenth century included the ship, schooner, bark, snow, pink, and shallop (Alford 1990:32-33; Chapelle 1935:11-12).

Single-masted sloops were eventually found to be too small to carry the increasing amount of commerce on the Cape Fear River. The need for a larger vessel capable of transporting more cargo led to the development and use in the early eighteenth century of a two-masted, fore-and-aft-rigged craft known as the schooner. The schooner allowed distribution of the sail canvas on two masts and made it feasible to build this type of craft in tonnages exceeding those of the sloops. The smaller sail sizes also required fewer crew to operate. The design and operation of the larger two-masted schooner proved both popular and economically beneficial. The schooner quickly became the most common vessel type until the mid-nineteenth century. Sloops and schooners were constructed at several of the shipyards located along the lower Cape Fear River. Some of the last wooden schooners built during the early twentieth century at Wilmington were four-masted (Alford 1990:32-33; Chapelle 1935:12).

In the early decades of the nineteenth century steam-powered vessels began plying the waterways of eastern North Carolina and effectively replacing much of the sail- or oar-powered craft in use. Large, and often dangerous, steam engines and boilers converted steam into a mechanical motion that turned wooden side or stern paddlewheels. Fueled by either coal or firewood (found plentifully along the river banks), the shallow-drafted steamboats proved to be an efficient means of transporting produce and other farm goods from plantation landings to market. As a result of the improved means of transportation, steamboat companies developed and provided regular scheduled service for passengers and the transportation of freight between coastal ports, plantations, and river towns. Until the early twentieth century steamboats of a wide variety of sizes and designs were the most popular form of transportation on the Cape Fear River. Several shipyards within the Wilmington vicinity specialized in the construction and repair of this type of vessel (Alford 1990:34; Johnson 1977:31-33).

Naval technology developed significantly in response to the Civil War. The success of early vessels of a new type known as ironclads brought about changes in the materials and methods used for the construction of ships. The building of wooden vessels highly susceptible to fire, decay, and destruction by enemy attack during war slowly declined as an increasing number of iron ships were constructed. During the Civil War at least three ironclads were built in Wilmington. While the upper structure of this class of vessel was covered in iron, the lower portion of the hull below the waterline was wooden. The need for vessels completely encased in iron ended with the conflict, but the method of ship construction established with the ironclads continues to this day.

During World War I Wilmington was established as a prime shipbuilding location for a new method of building vessels of concrete **(Figure 26)**. In April 1918 the U.S. Shipping Board selected Wilmington as one of its sites for a government yard. Seven concrete ships were planned to be built at the city. The larger of the vessels, 7,500 tons, would be used as tankers with capacities of 50,000 barrels of oil. The smaller, 3,500-ton, vessels would be cargo ships (Wilmington Dispatch, February 10, March 28, April 6 and June 6, 1918; Wilmington Star, April 6, 1918). The new type of cargo vessel, or "stone ship," required approximately 300 tons of concrete and was poured in three sections-bottom, sides and decks. Drying of each section had to occur before the next section could be poured. When all three sections were complete, the vessel had to "set" for a month before launching. Some of the last large wooden ships were also constructed at Wilmington during this period **(Figure 27)** (Wilmington Dispatch, January 27, 28, 1919; Wilmington Star, January 29, 1919).

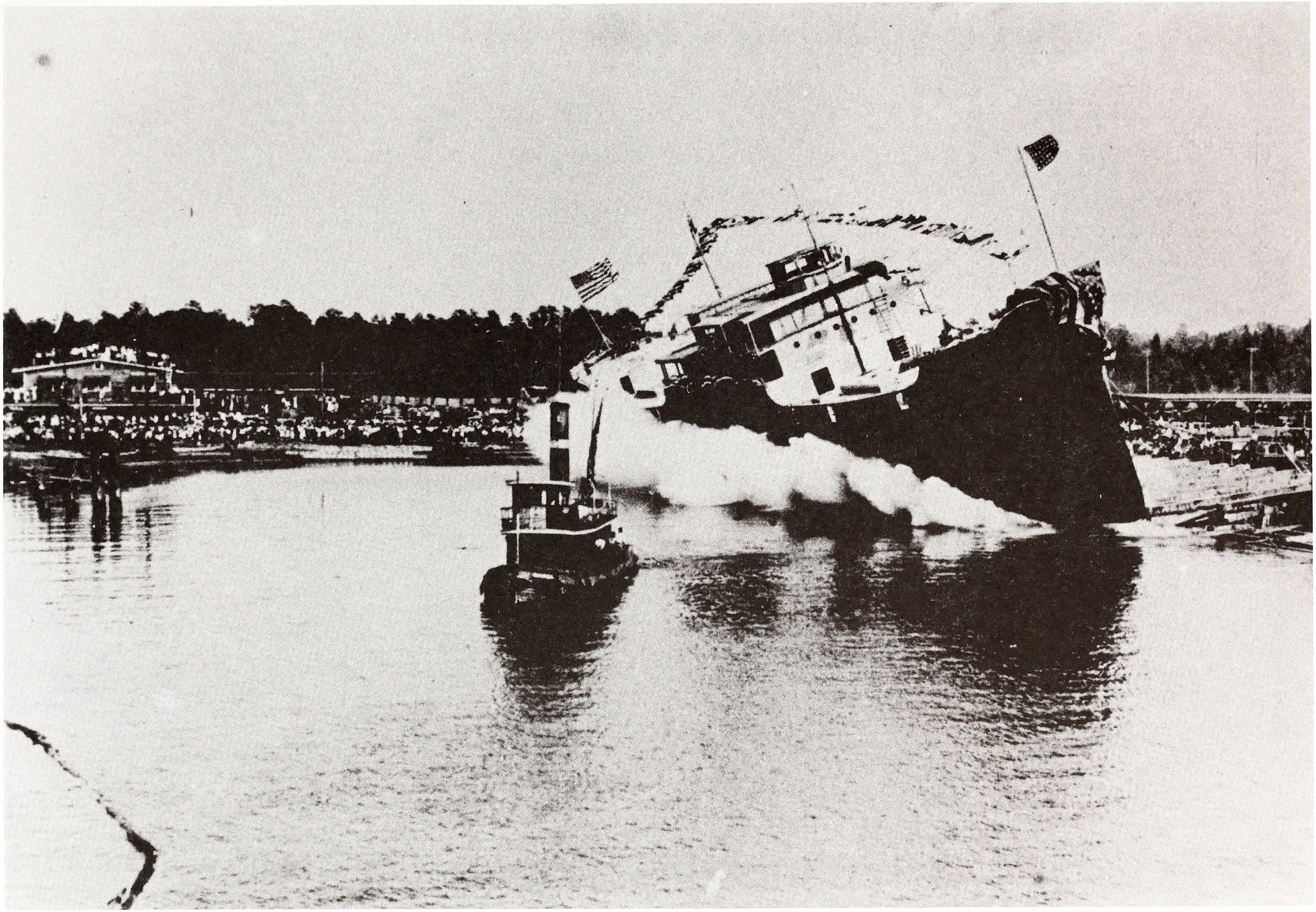

Figure 26. Photograph showing launching of World War I concrete ship *Cape Fear* from the Liberty Shipyard on July 31, 1919.

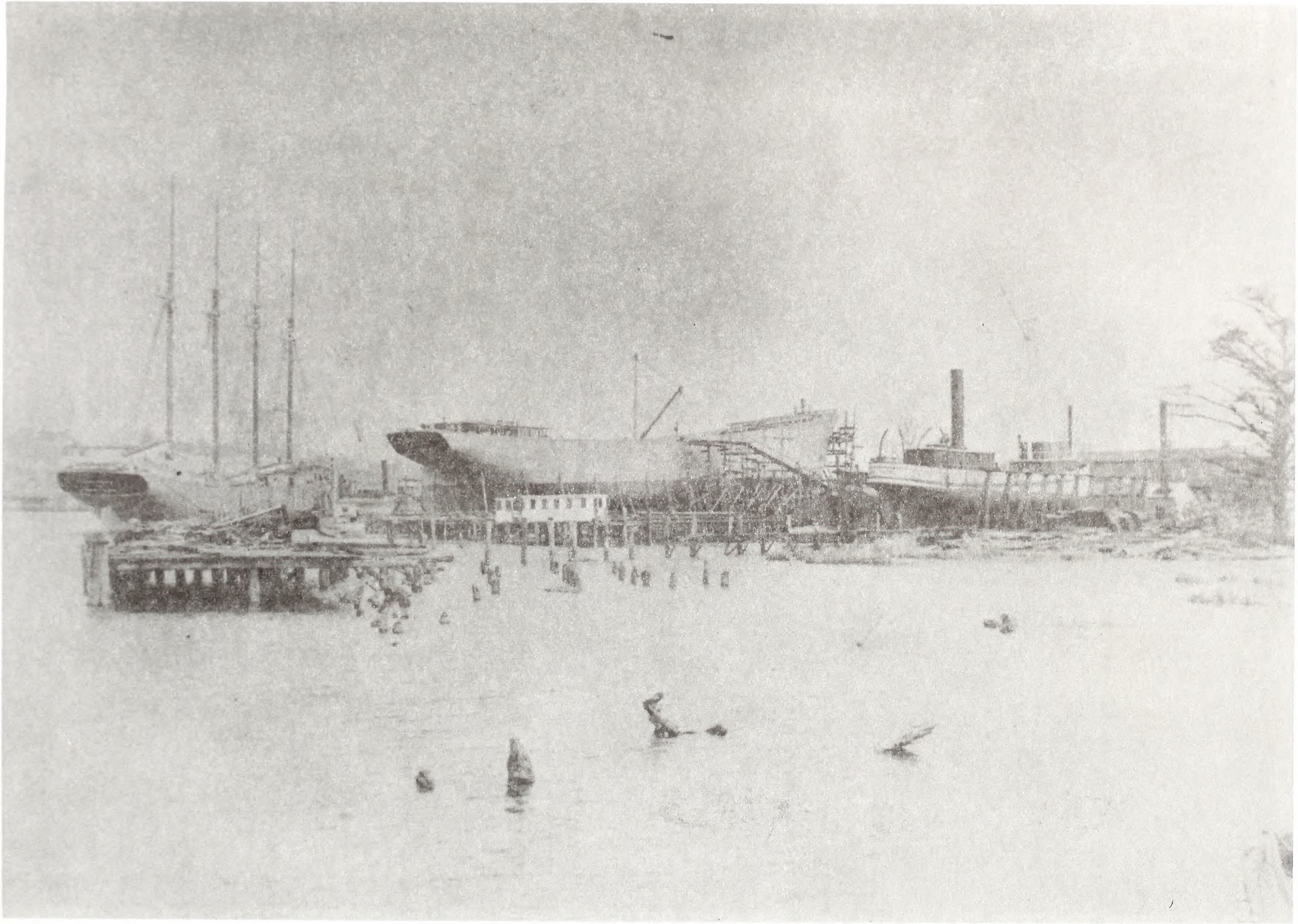

Figure 27. Photograph showing schooners under construction.

The greatest boom in shipbuilding on the Cape Fear River occurred during World War II. Wilmington was again selected as the site for construction of cargo ships needed for the war effort. Two types of cargo vessels were built in Wilmington: Liberty ships and Victory ships. The Liberty ships were officially designated as the EC-2 (Emergency Cargo) type. The standard Liberty was more than 441 feet in length, with a beam of 56 feet and a draft of 27 feet. Libertys often carried more than their stated capacity of 9,146 tons of cargo with a full load of fuel. The ship had five holds: three forward of the engine spaces and two aft. One hundred twenty-six of these class vessels were produced at the Wilmington shipyard (Wilmington Star, April 3, 5, 23, October 2, 1941; Wilmington News, May 22, 29, 1941). The second vessel class, the C-2 or Victory ship, was also constructed at the Wilmington yard. It was hoped that this type of vessel could be used as merchant ships following the war. The C-2 ships were 460 feet long, 63 feet in beam, and had a dead-weight tonnage capacity of 8,500 tons. The North Carolina Shipbuilding Company produced 117 vessels of the C-2 type (Wilmington Star, April 3, 5, 23, 1941; Wilmington News, May 22, 29, 1941; Still n.d.:4-5). There were many variations in the C-2 design that caused considerable delays when compared to the amount of time required to build an EC-2-type vessel. Each variation of the C-2-type ships required different means of propulsion and prevented standardization. The Liberty ship was much easier to produce by comparison (Still n.d.:5).

Shipbuilding along the river drastically declined during the last half-century. When military vessels were not being built in Wilmington, private shipbuilding companies constructed small river craft, yachts, or speedboats on the sites of the abandoned war shipyards. Presently only fishing boats or small craft for government use are built along the shores of the lower Cape Fear River.

Shipyards, Boatyards, Repair Yards and Marine Railways

The following vessel construction sites along the lower Cape Fear River are listed chronologically. Known sites are identified as being either a shipyard, boatyard, or repair yard. When no specific mention could be found in the historical accounts referring to the name of a shipbuilding location, the term shipyard has been applied to sites where large or multiple vessels were constructed. Boatyards refer to the smaller sites, or where construction of only a single craft is known. Fifty-five shipyards, boatyards, repair yards, or marine railways have been identified within the project area. A description for each of the following is given below.

Ayllón's Shipyard
Brunswick Town Shipyard
Wimble/Dyer/Fox Shipyard
Doughty Shipyard
Grainger/Walker Shipyard
Corbett Shipyard
Wells Shipyard
Law Boatyard
Hunter Shipyard
Telfair Shipyard
Smithville Gunboat Shipyard
Bald Head Island Shipyard
McIlhenny Boatyard
Cassidey Shipyard
O'Hanlon Shipyard
Lewis Boatyard
Cameron Boatyard
Morse Boatyard
Price Shipyard
Harrison/Beery Shipyard
Morse and Ellis Shipyard
Ellis and Welch Shipyard
Bridges and Davis Shipyard
Bryant's/Colville Boatyard
Lemmerman and Coney Boatyard
Daniels Boatyard
Blossom & Evans Boatyard
Northrop's Mill Boatyard
Garcia Boatyard
Taylor's Steam Sawmill Boatyard
Evans and Skinner Shipyard
Evans Shipyard
Heide's Boatyard
Wilson Sawmill Boatyard
Summerell Boatyard
Government Shipyard
Wessell Boatyard
Piver Boatyard
Otto's Boatyard
Whitlock/Cumming's Boatyard
Southport Pilots Boatyard
Wilmington Iron Works
Gaskill Boatyard
Hamme Marine Railway
Naul/Suffolk/Warcrete Shipyard
Cape Fear Shipbuilding Co.
Cushman-McKown Shipyard
Carolina Shipbuilding Co.
Liberty Shipbuilding Co.
Newport Shipbuilding Co.
Stone Towing Co. Railway
Herbst Boatyard
Intracoastal Barge Lines
North Carolina Shipbuilding Co.
V. P. Loftis/Tidewater Shipyard

Ayllón's Shipyard (1526)

Spaniard Lucas Váquez de Ayllón is thought to have been the first European to venture up the Cape Fear River, or Rio Jordan as he called it. While attempting to ascend the river, one of the vessels under Ayllón's command wrecked in the lower reaches. Ayllón's men built a new craft on the west bank of the Rio Jordan to replace the lost vessel. The building of this ship, more than four and a half centuries ago, may well be the basis of the local tradition that "a Spanish shipyard" was once located on the west bank of the Cape Fear River, approximately 2½ miles upstream from what is now the town of Southport (Angley 1983:1; Lee 1965:12-14; Reaves 1978:1).

Brunswick Town Shipyard (ca. 1727 - 1774)

The first oceangoing vessel to be constructed on the Cape Fear River following permanent settlement was likely the 10-ton sloop *First Adventure* built in 1727-one year after the establishment of Brunswick Town. The exact location of construction is not known, but the appropriately named sloop was probably employed in the coastal or West Indian trade by a Brunswick merchant (New Hanover County Registry Records, AB:60; Mosley n.d.:6-8; Watson 1992:16). Ship construction at Brunswick in the following years is suggested by the presence of such residents as Christopher Wotten, "sailmaker"; Thomas Payne, "Shipwright"; and David Smeeth, "ship carpenter" (Brunswick County Registry Records, A:81, 135, 145; Lee 1965:156). The *Lord Hyde*, completed in 1768, could have been built on the waterfront lot that Smeeth owned in the southern part of Brunswick Town. In 1774 rigging was received within the town for another vessel under construction (Brunswick County Registry Records, A:145, B:52; Lee 1965:156).

Wimble Shipyard (ca. 1730 - 1737)
Dyer Shipyard (1737 - 1739)
Fox Shipyard (ca. 1740 - 1744)
On June 18, 1737, James Wimble of Newton (Wilmington) sold to Michael Dyer, shipwright, three lots within the town. The lots listed were numbers 96 and 103, and "the Ship Yard" located between Church and Castle Streets, and Lot 104 between the same two streets. It is clear that a shipyard existed at this location prior to 1737, when Michael Dyer purchased the property. This may have been the location where James Wimble, a mariner, merchant, and surveyor, had built in 1730 the 128½-ton brigantine *Rebecca*. The *Rebecca* measured 54 feet length of keel, 21 feet in beam, and 10 ½ feet depth. Richard Keen, another shipwright, was unsuccessful in 1733 in his attempt to purchase from James Wimble a water lot south of Church Street that was likely the same shipyard (Cumming 1969:6; Waddell 1989:205; McKoy 1967:66-67; Moseley n.d. 8-9).

In 1739 the New Hanover County Court ordered Michael Dyer to give security to teach his apprentice, William Martindale, the trade of a shipwright. Dyer sold the shipyard to Nicholas Fox on December 31, 1739. Fox probably kept the shipyard in operation until his death in 1744, when he willed it to Susannah Portevint (New Hanover County Registry Records, AB:58-60, 342-343; Moseley n.d.:10; McKoy 1967:31-32).

Doughty Shipyard (ca. 1746 - 1752)
The old Dyer shipyard may have eventually passed into the hands of John Doughty. Doughty is the only "ship carpenter" listed between 1746 and 1752, and he may be responsible for the construction of at least six vessels in Wilmington during that period. In 1746 the 14-ton sloop *Duncan and Hannah* was constructed. Over the next two years three brigantines were launched on the Cape Fear River: the *Unity*, 80 tons, in 1747; the *Orton*, 45 tons, and *Three Marys,* 40 tons, in 1748. The following year the 25-ton sloop *Hope* was built, and an 80-ton ship, the *Recovery*, was constructed in 1752. The brigantines and the ship were likely sold to British or North Carolina merchants. (Still n.d.; Moseley n.d:10; Goldenberg 1976:79-82,120).

Joshua Grainger Shipyard (prior to 1753)
John Walker Shipyard (ca. 1753 - 1760)
Joshua Grainger has been mentioned as owning a shipyard at the foot of Church Street. In 1753 Grainger sold what may be the same property, located on the south side of Lee's Creek, to John Walker, another ship carpenter. Walker is mentioned several years later in connection with two other shipwrights. When William Neil, a friend of Walker's, died in 1758 he left half of his ship-working tools to John Walker and the other half to David Fowler. Walker probably continued in the shipbuilding business for another two years. In 1760 Walker sold his house at Front and Dock Streets and may have moved from Wilmington (Moseley n.d.:10-11; McKoy 1967:23,34; Waddell 1989: 205).

Corbett Shipyard (ca. 1758 - 1762)
Prior to May 1759 Archibald Corbett may have constructed a vessel for James Baird Jr. and Alexander Walker of Glasgow. The name of the vessel and whether it was actually built are not indicated in the records (New Hanover County Registry Record D-403; Moseley n.d.:11). A 65-ton brigantine was constructed in Wilmington in 1762. The vessel was named the *Edinburgh* and was owned in October 1770 by four merchants-three from Charleston and one from Bristol, England (Olsberg 1973:219; Moseley n.d.:11; Waddell 1989:205).

Wells Shipyard (ca. 1766 - 1779)
In 1766 Robert Wells apparently repaired vessels along the Wilmington waterfront on a lot located just south of Ann Street. Wells purchased a lot in Wilmington in 1769 from Peter Lord of Bladen County. Peter Lord inherited the property from his father, William Lord, who purchased the lot in 1737 from James Wimble. Wells may have been connected with the construction of the 100-ton brigantine *Hannah* in 1773. Robert Wells was still in Wilmington in 1779 (New Hanover County Registry Record F-119 and AB-283; Kellam n.d.:133-134; Moseley n.d.:12).

Law Boat Yard (ca. 1771)
David Law built a small vessel with a capacity of 140 barrels for William Parker in the fall of 1771. Unfortunately, the name of the vessel and the location where it was built are not given in the records (New Hanover County Registry Record F-303; Moseley n.d.:12).

Hunter Shipyard (ca. 1774 - 1775)
The only other shipwright mentioned as residing in Wilmington during the Revolutionary War was Abraham Hunter. On the last day of 1774 Hunter purchased

anchors, cables, canvas, rigging, cabin furniture, and other articles that had been confiscated from the 102-ton brigantine *Thetis*. The materials Hunter purchased were to be used for a new vessel "on the stocks." Hunter and Wells may have been responsible for the partial construction in early 1776 of the *General Washington*, a vessel intended for use in the defense of Wilmington. The shipyard of Abraham Hunter was passed on to his heirs. This shipyard was probably the same one later owned in the 1830s by Doyle O'Hanlon (McEachern and Williams 1976:7; Moseley n.d.:13; Still 1976:6; Wilmington Recorder, July 6, November 23, 1831).

Telfair Shipyard (1799 - 1802)
In February 1799 John Telfair, shipwright, purchased a piece of property adjacent to the southern boundary of the Robert Wells's shipyard. That property, in conjunction with others, was indicated as the second full lot on the south side of Ann Street. The lot included "all houses, out houses, buildings, improvements, wharves, ways, privledges, hereditaments and appurtenances." Martin Ettinger, a "Black Smith, White Smith, Gunsmith & Nail Manufacturer," advertised in August 1799 that he had "removed his shop to Mr. Telfair's shipyard." Ettinger and Telfair later became business associates. John Telfair had been in the Wilmington area since at least early 1794, when he purchased 560 acres situated "in the drains of Long Creek & Widow Moore's Creek." It is likely that John Telfair worked in a shipyard as a skilled laborer prior to his 1799 land purchase, perhaps the shipyard that constructed the 29-ton schooner *Chance* in 1793. John Telfair died in 1802 (New Hanover County Registry Record M-81, 83-86; Moseley n.d.:14-15; Still n.d.; Wilmington Gazette, August 8, 1799).

Smithville Gunboat Shipyard (1808 - 1810)
Three Jeffersonian gunboats were built at Smithville during 1808-1809 for the protection of Wilmington's commerce. In March 1808, Secretary of the Navy Robert Smith issued a contract to Amos Perry for the construction of three gunboats at Smithville. Specifications in the contract called for the vessels to be 60 feet on deck, with a beam of 16 feet 6 inches, and 6 feet 6 inches depth of hold. Perry provided the craft with two 6-pound guns and a schooner rig, rather than the sloop rig ordered by the secretary of the navy. The first, gunboat *No. 166* (renamed *Alligator* during the War of 1812), was launched on the first day of April 1809. Gunboat *No. 167* followed within a few months and was launched at Smithville on September 19, 1809. The first two gunboats, although nearly complete, were placed "in ordinary" for twenty-seven months awaiting blacksmiths, top timber, iron, and other supplies. The third vessel, gunboat *No. 168*, was "nearly as forwards as No. 166" by that time. When the navy commander for the southern district inspected the gunboats, he determined that they were more like pilot boats than gunboats, and were too small for the duty they were expected to perform. He recommended that Perry add 2 feet to the beam, reduce the rake to the stem, and alter the topsides, which was expected to reduce the draft and make the craft more seaworthy. The modifications, and other problems including a lack of funds, delayed the relaunching of the gunboats until 1811. When the vessels were reactivated

in the fall of 1811, the best of the three, gunboat *No. 168*, was transferred to the St. Mary's station in Maryland. The other gunboats on the Wilmington station were decommissioned after the war and sold (Moseley n.d.:19; Smith 1994:32-34).

Bald Head Island Shipyard (ca. 1814)

A shipyard that appears on the Potter (ca. 1814) map may be associated with Benjamin Smith. The shipyard is shown directly north of the "new light house," along Cape Creek. Southwest of the shipyard adjacent to the Cape Fear River, "Sea Castle," the summer house of Benjamin Smith, is marked (Potter ca. 1814).

McIlhenny Boatyard (ca. 1828 - 1833)

In 1824 John K. McIlhenny constructed a 181-ton brigantine named the *Eliza* and the following year launched the *Sarah*, a 136-ton brigantine. Both vessels, with dimensions of more than 70 feet long by 20 feet in width, were used for trade between Wilmington and New York. A steamboat named the *Enterprise*, owned by Gen. E. B. Dudley and John McIlhenny, was launched from the wharf of Mr. McIlhenny on September 23, 1828. The steamboat was intended to run as a packet between Wilmington and Fayetteville. It was described as "a very small boat, and was used . . . for towing the rice flats from the different plantations." The boat was lengthened, then used about 1832 to convey mail and passengers between Wilmington and Smithville (Wilmington Star, October 28, 1828, March 28, 1832; Sprunt 1896:34-35; Moseley n.d.:20).

In James Sprunt's 1896 work Tales and Traditions of the Lower Cape Fear he makes the claim that "The first and only sailing ship built at Wilmington was launched June 5th, 1833, by Mr. John K. McIlhenny . . ." and named the *Eliza and Susan*, after his two daughters. This statement is partially in error. The *Eliza and Susan* was not the first and only sailing ship built at Wilmington; however, the date of the launching is accurate. The vessel was described as being a "full-rig ship of 316 tons, built of the staunchest live oak, and of unusual strength. The oak came partly from Bald Head and partly from Lockwood's Folly. She was pine-planked and coppered." The ship was used in the Pacific whaling trade (Wilmington Messenger, May 2, 1897; Sprunt, 1896:33-34). Sprunt describes the yard where the *Eliza and Susan* was built as being located on a canal cut by McIlhenny and "at right angles with the river and parallel with Queen Street . . ." (Sprunt 1896:34).

James L. Cassidey & Sons Shipyard (ca. 1830 - 1855)
Cassidey Brothers & Ross Shipyard (ca. 1868 - 1879)
Cassidey Brothers Shipyard (1855 - 1880)

The earliest account of shipbuilding at the James Cassidey shipyard, located near the foot of Church Street, dates from 1830. Two years earlier Cassidey purchased lots on Front Street that extended to the river. On March 31, 1830, the steamboat *Retrieve* was launched from the Cassidey shipyard at the south end of town (Wrenn, 1984:266;

Wilmington Cape Fear Recorder, March 31, 1830). The new steamboat *Clarendon*, 105 feet in length, with an 18-foot beam and an 8-foot hold, was launched in early March 1833 from the Cassidey shipyard. The *Clarendon* was built from live oak, white oak, and red cedar and planked with pine and copper fastened as well as coppered to the bends (Wilmington People's Press, March 6, 1833).

In April 1837 James Cassidey erected a marine railway at the shipyard (Wilmington Advertiser, April 14, 1837). In April 1850 the 50-ton steamboat *Union*, owned by James Cassidey, was launched. The boat was said to be "a small one" and "of very light draught" intended for use of the Cape Fear River above Wilmington (Wilmington Chronicle, April 24, 1850). On November 21, 1846, "the French Barque *Harve Martinique*, was launched from Mr. Cassidey's Marine Railway; she was copper bottomed, and glided into the water most beautifully . . ." (Wilmington Commercial, November 21, 1846).

At his shipyard on March 9, 1853, James Cassidey launched a steamer built after the model of northern ferry boats. The steamer, built for the Wilmington & Manchester Rail Road, conveyed passengers from the terminus on the opposite side of the river to the Wilmington & Raleigh Rail Road depot. The boat was 87 feet 11 inches long (93 feet overall), 6 feet 10 inches in the hold, and 20 feet 7 inches in beam and was built with a rudder at either end. The vessel drew 3 feet 6 inches of water. The 60-horsepower engine was built by C. Reeder Jr. of Baltimore (Wilmington Herald, March 9, 1853).

On March 22, 1855, James Cassidey gave notice that he had retired from the ship carpentry business and that all future construction would be conducted by his son (Wilmington Tri-Weekly Commercial, March 22, 1855). During late 1863 the Confederate ironclad sloop-rigged steam-powered *Raleigh* was laid down at a wharf near the foot of Church Street, then after being launched was completed at the James Cassidey & Sons shipyard. The *Richmond*-class ironclad, built to John L. Porter's plans, similar to those of the CSS *North Carolina*, was 150 feet in length with a 32 foot beam and a draft of 12 feet. Two thicknesses of iron plating, or casemate, covered a heavily constructed wooden hull. A subsurface ram was fitted at the bow. The ironclad *Raleigh* was commissioned on April 3, 1864. Within a month of its commission the vessel was accidentally run aground near Horseshoe Shoals in the Cape Fear River and severely damaged. Unable to be pulled free, it was destroyed by the Confederates (Farb 1985:322; Shomette 1973:352-353).

James Cassidey died in 1866 (although the Wilmington 1866-1867 city directory listed the firm of Cassidey & Beery, at South Water Street, between Nun and Church). The following year the brothers Frank A. L. and Henry C. Cassidey entered into the business of the Wilmington Marine Railway and Ship Yard with Roderick G. Ross (Wilmington Star, September 25, 1868). Their brief partnership ended on October 15, 1868 when the following notice was published: "the copartnership heretofore existing under the firm of Cassidey Brothers & Ross, is this day dissolved by mutual consent. The business will be conducted in the future by Cassidey Brothers" (Wilmington Star

October 15, 1868; Wilmington City Directory, 1866-1867). Subsequent accounts, however, refer to the Cassidey Brothers and Ross shipyard.

At the Cassidey Brothers & Ross shipyard a variety of repair work and ship maintenance was undertaken in 1868. In early March of that year the bark *Dunkeld* underwent repair work there. The schooner *Warren* required repairs in May after running upon some old wrecks lying in New Inlet. The steamer *City Point* had its bottom scraped while upon the Cassidey marine railway in June, while the propeller-drive *Ida Potter* had a new iron flange installed by July 1868. The *City Point*, a steamer of 1,110 tons burthen, as one source "reliably informed," was "the largest steamer which has ever been drawn up on a marine railway south of Boston" (Wilmington Dispatch, March 4, May 22, June 18, July 21, 1868). A new iron steamer was under construction by late July by Frank Cassidey. The iron steamer was 30 feet in length, 6 feet in beam, and had a capacity for thirty or thirty-five passengers. Two engines, of three horsepower each, were to be included (Wilmington Dispatch, July 26, 1868).

In August 1868 the steam tug *Pocosin* arrived at the Cassidey Brothers & Ross shipyard for repairs. The sidewheel steamer *Pocosin* had a capacity of 105 tons. Within days the steamer *Gen. Howard* was launched from the shipyard after undergoing overhauling and repair work to its boiler and engine, as well as general maintenance work. By September the steamer *Lizzie Baker* had arrived in Wilmington for repair work. In addition to work on steamers, the Cassidey yard performed repair work on sailing vessels. The schooner *John*, after being damaged off Hatteras, underwent repairs at the yard (Wilmington Dispatch, August 9, 13, September 15, 1868).

After being repaired, the schooner *George & Emily* was launched from the shipyard in March 1873. A pilot boat with 47 feet keel, 55 feet on deck, 16½ feet beam, and 7 feet hold was laid at the Cassidey Brothers shipyard in May 1873. The 40-ton pilot boat, for use on the Cape Fear River, had frames constructed of live oak, white oak, and yellow pine and the planking of pine (Wilmington Dispatch, May 18, 1873). The wrecked schooner *Anna Shephard* was pumped out and taken upon the shipyard ways in early October 1873. The lighter *Modoc*, accidentally sunk in a collision with a steamer, was hauled to the Cassidey shipyard for repairs in April 1874 (Wilmington Star, March 21, April 23, October 3, 1873).

The marine railway of the Cassidey Brothers was seriously damaged in early 1875 by fire. Several sheds were rebuilt and machinery repaired. Two vessels-the steamer *Emma Dunn*, used by the government as a suction boat, and the steamer *Warrior*-were overhauled in October of that year. That same month a new barge was completed for contractors to use in building the apron at New Inlet (Wilmington Star, January 31, October 3, 24, 1875).

In August 1878 the steamer *William Nyce*, the steam tug *Eutaw*, and the Spanish barque *Cabieces* were taken upon the Cassidey ways for repairs. Light Ship *No. 29* was rebuilt at the shipyard in November 1878, while the German barque *Kosmos* underwent repair work and the Norwegian brig *Fred* was having a mainmast replaced (Wilmington Star, August 24, November 3, 1878). In early 1879 the Rattlesnake Shoal Lightship was hauled on the marine railway of Cassidey & Ross for repairs, and by July the Frying Pan Shoals Lightship was undergoing extensive repairs (Wilmington Star, January 5, July 2, August 30, 1879).

At the marine railway of Evans and Skinner, located on the riverfront between Nun and Castle Streets, a little steamer was constructed in April 1880 by Henry Cassidey and S. W. Skinner. The vessel measured about 50 feet in length and 12 feet in width. It was furnished with a stern wheel and could carry 150 passengers back and forth from the beach at Wrightsville Sound (Wilmington Star, April 20, 1880). It was probably about 1880 that the Cassidey brothers sold their marine railway and shipyard to Samuel Skinner, who continued shipbuilding at the site.

O'Hanlon Shipyard (ca. 1831 - 1837)

Doyle O'Hanlon's shipyard appears to have been located on the north side of Castle Street, from Front Street to the Cape Fear River. This same lot was referred to as the house, dock, and shipyard of the late Thomas Hunter. The shipyard may be the same one owned during the Revolutionary War by Abraham Hunter and passed on to his heirs (New Hanover County Registry Record R-100, 101; Moseley n.d.:22). On July 4, 1831, the keel of the steamboat *John Walker* was laid at the yard of Doyle O'Hanlon. The new vessel measured 110 feet long and was between 220 and 250 tons. It was launched on November 10, 1831, after only eighty-six working days. The *John Walker* was used on the trade between Wilmington and Fayetteville until destroyed by fire in June 1836 (Wilmington Recorder, July 6, November 23, 1831; Fayetteville Observer, April 20, 1837).

Exactly one year after starting the *John Walker*, O'Hanlon laid the keel of the steamer *Jackson & VanBuren*. This steamer was also intended for use on the trade between Fayetteville and Wilmington (Fayetteville Observer, July 17, 1832). On April 1, 1834, the flatboat *Union* was launched from the shipyard of Doyle O'Hanlon (Fayetteville Observer, April 15, 1834). Another vessel built at the O'Hanlon shipyard was the steamer *Cotton Plant* (1836) which replaced the destroyed *John Walker*. The *Cotton Plant,* owned by O'Hanlon, was noted as the fourth steamboat on the river (Fayetteville Observer, April 20, 1837; Moseley n.d.:21).

Lewis Boatyard (1833)

At the boatyard of Simon Lewis and James Lewis, the "flatt" *Andrew Jackson* was built during the spring of 1833. The vessel was 45 feet in length and between 8 and 9 feet beam. The location of the boatyard is not known (New Hanover County Registry Record V:13).

Cameron Boatyard (1833)

The 95-ton schooner *Robert Edens*, owned by John S. James & Co. and James Cameron, was launched in late April 1833. This vessel may have been the only ship built at the Cameron boatyard. The location of the boatyard is not known (Wilmington People's Press, May 1, 1833; Moseley, n.d.:21).

Morse Boatyard (1834)

Eden Morse constructed the 200-ton brigantine *Caroline* for Captain Dougal of Wilmington. The *Caroline* was launched in the early spring of 1834. The location of the boatyard is not known (Fayetteville Observer, April 15, 1834; Moseley n.d.:21).

Price Shipyard (1841)

Richard Price had a shipyard at the south end of town in 1841. The steamboat *Johnston Blakeley* used on the run between Fayetteville and Wilmington was launched from that yard in October (Wilmington Weekly Chronicle, October 13, 1841).

Harrison Steam Sawmill Boatyard (1842 - 1848)
Beery Shipyard or Commercial Mill and Shipyard - Eagles Island (1848 - 1892)
Robert H. Beery Shipyard - Castle Street (ca. 1873 - 1889)

In November 1841 Samuel Beery placed a notice in a Wilmington newspaper offering for sale his house and lot located in Smithville. The house was still advertised for sale in February 1842 when he moved to Wilmington. By March Beery announced that he was prepared to build or repair flats, boats, or other craft at Wilmington by taking vessels completely out of the water upon ways at the Harrison Steam Sawmill, situated at the foot of Church Street. Beery and his son, Benjamin, formed a copartnership (Wilmington Chronicle, November 10, 1841, March 9, 1842; Wilmington Dispatch, October 8, 1917). The Beery family built at least two schooners at the Harrison Sawmill location. The first was the *Colonel John McRae*, launched in November 1846 by Benjamin. Another of the early vessels constructed was the 130-ton schooner, *John Story*, launched from their shipyard in October 1847. The vessel, owned by George W. Davis and Benjamin Beery, was intended for the Havana trade (Wilmington Chronicle, October 20, 1847; Moseley n.d.:25).

On June 20, 1848, Samuel Beery and two of his sons purchased from Henry Savage, a bank president, property on Eagles Island for $12,000 (the same land that Savage had purchased from Thomas H. Wright in July 1844) (New Hanover County Registry Record KK:201). The Beerys called their shipyard on Eagles Island the Commercial Mill and Ship Yard **(Figure 28)** (Wilmington Chronicle, November 10, 1841, March 9, 1842; Wilmington Daily Journal, February 18, 1852). Samuel Beery and his sons completed in December 1849 the 250-ton brig *John Dawson*, with a length of 100 feet (Wilmington Chronicle, December 4, 1849). The schooner *Ella*, of about 100 tons burthen, was

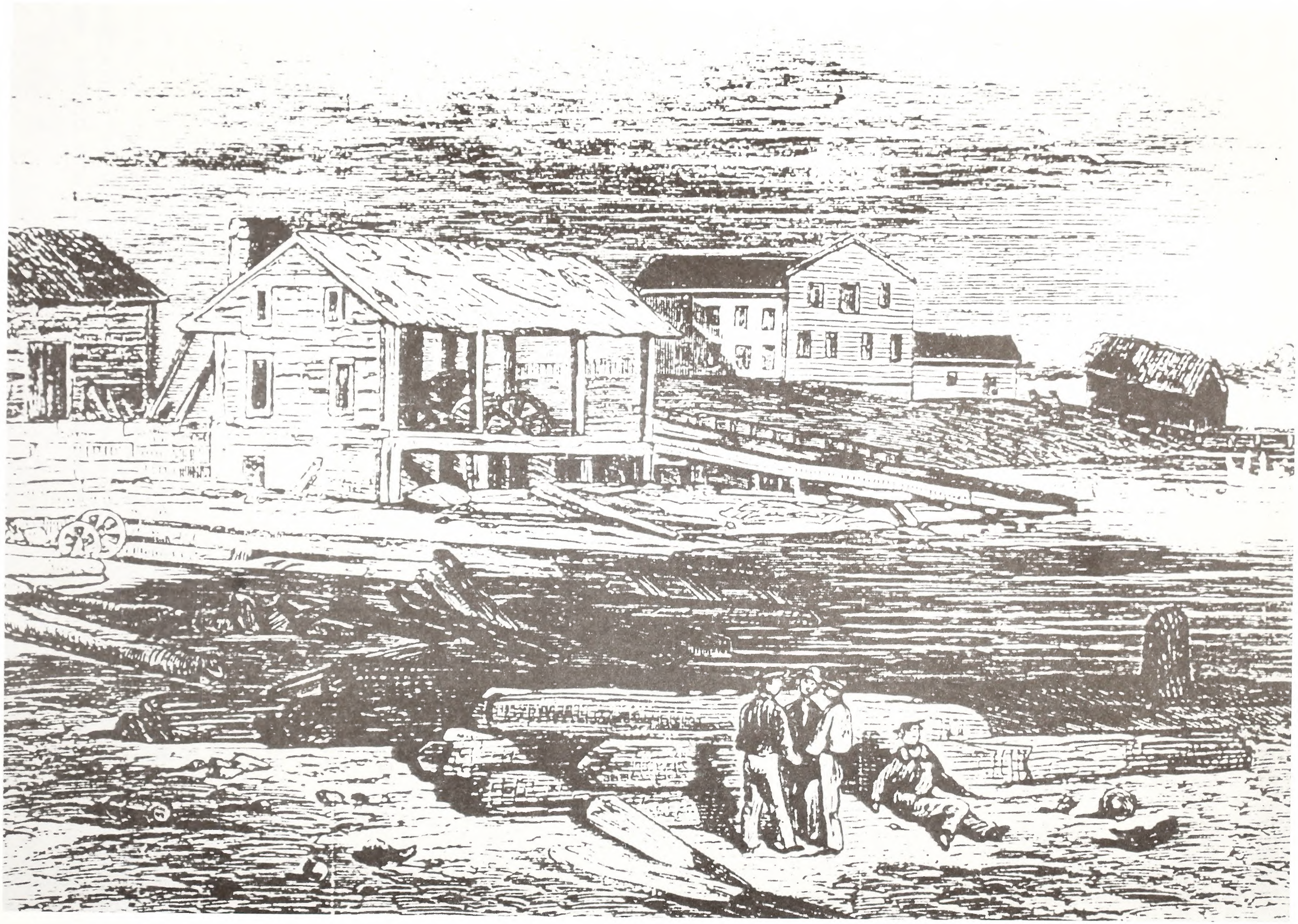

Figure 28. Illustration showing Beery Shipyard on Eagles Island.

launched by the Beerys in July 1850 from the shipyard (Wilmington Chronicle, July 31, 1850).

The copartnership between Samuel and Benjamin Beery was dissolved on February 18, 1852. Benjamin purchased his father's entire interest in the steam sawmill, shipyard and marine railway on Eagles Island. The yard also included a blacksmith shop and a rigging loft (Wilmington Daily Journal, February 18, 1852). Samuel Beery died less than a year later on January 9, 1853, after turning the shipbuilding business over to Benjamin (Wilmington Herald, January 12, 1853). The Beery shipyard sustained fire damage in May 1854 when the adjacent steam sawmill of Costin, Gregg & Co. burnt. Fire destroyed the workshop and enginehouse attached to the marine railway (Wilmington Tri-Weekly Commercial, May 20, 1854).

Just after the Civil War began in April 1861, Benjamin and his brother William Beery began production of vessels for the Confederacy on Eagles Island. In May 1861 William Beery purchased the old Cape Fear Marine Railway for their shipbuilding operation (Wilmington Daily Journal, May 15, 1861). The first work done at the Beery yard was converting the steam tug *Mariner* into a privateer. On July 14, 1861, President Jefferson Davis commissioned Capt. Benjamin Beery to command the boat. Local men from the Wilmington area made up the crew. The *Mariner* was 185 tons burden, equipped with a 16-pound gun and handled by thirty men. After successfully taking several prizes for the Confederacy, Captain Beery relinquished command of the privateer and resumed construction of vessels at his shipyard (Wilmington Messenger, April 26, 1892; Wilmington Star, May 23, 1917).

The most noted Confederate vessel built by Benjamin and William Beery was the ironclad steamer *North Carolina*. The *North Carolina* was constructed at the Beery's "Confederate Navy Yard" or "Navy Yard" in 1862. This *Richmond*-class steamer had low broad lines and was not seaworthy but rather intended for river work (Hall 1980:339). The ironclad was begun in July 1862 but remained nameless until October, when S. R. Mallory, secretary of the Confederate States Navy, named the ship the *North Carolina*. The Confederate vessel was the largest ship built by the Beery Brothers, with dimensions of 150 feet in length, 32 feet in beam, and a depth of 14 feet (Shomette 1973:333).

In October 1863 some of the men assigned to work at the shipyard deserted from the Benjamin and William Beery shipyard (Wilmington Daily Journal, October 1, 1863). A second fire in April 1864 again destroyed part of the Beery shipyard. The major fire broke out in a warehouse on the western side of the river, some 200 feet south of the ferry, opposite Market Street, and spread onto the Beery shipyard property, destroying the sheds and sawmill machinery in the rear of the shipyard. Work was delayed for three weeks (Wilmington Daily Journal, April 30, 1864). Other ships constructed at the Beery yard during the war were the steamer *Yadkin*, a dispatch boat, and several steam launches. One account indicates that a submarine was built at the Beery shipyard. Launched the day before Federal troops arrived in Wilmington, it was burned the same day to prevent capture (Wilmington Messenger, April 26, 1892; Wilmington Star, September 20, 1936). Benjamin Beery burnt his own shipyard to prevent it from falling into the hands of the Federal forces in early 1865 (Wilmington Dispatch, July 10, 1916).

Following the Civil War the Beery brothers contracted to build vessels at other nearby locations and were involved in the wrecking business. An 1866-1867 Wilmington city directory lists Benjamin Beery as shipbuilder at the Cassidey and Beery shipyard on South Water Street, between Nun and Church. Brother William was shown as a boatbuilder on Eagles Island in 1869 (Wilmington City Directory, 1866-1867; Branson's, 1869).

On October 10, 1868, Beery and Sink Co. raised from below the Dram Tree one of the boats sunk during the Civil War. The raised vessel was put on the ways with the intention of converting it into a lighter (Wilmington Star, October 11, 1868). In December 1871 the Beery wreckers were successful in pulling the lighter *Washington*, from the Fort Caswell beach where it had grounded during a gale. A new Worthington pump advertised in 1868 by Benjamin Beery as being "capable of throwing a barrel of water per stroke" may have been used for the projects. A wrecking pump for use on the steamer *Waccamaw* was also tested in late 1872 by Capt. Benjamin Beery. The wrecking pump was capable of lifting fifty to sixty barrels per minute in freeing wrecked vessels (Wilmington Star, November 28, 1872).

At Smithville in August 1871 the Beerys began building a new pilot boat for Thomas Thompson and Julius Dozier. By February 1872 the Beerys had built and launched the new vessel known as the *Robert H. Cowan* (25 tons). The pilot boat was sent to Wilmington to be fitted with rigging, spars, and so on, at the Beery shipyard on Eagles Island, which recently had been rebuilt. The Beerys constructed two vessels in 1873 on the east side of the river: the *Undine*, a "beautiful yacht" launched at Sunset Hill (Front Street) in Wilmington on May 11, 1873, in view of a large number of ladies, and a "clinker-built skiff" constructed by William M. Beery, which was available for inspection in August 1873 at the shop of S. W. Morse on Second Street, between Orange and Ann Streets. The skiff measured 20 feet of keel, 5 feet 9 inches beam, and depth of 20 inches (Wilmington Journal, August 16, 1871; Wilmington Star, May 12, August 13, 1873).

In March 1873 Capt. Benjamin Beery succeeded in floating the hull of the schooner *Maria C. Frye*, which had gone ashore at Cape Fear on Smith's Island and caught fire and burnt. Capt. Beery, now associated with the Waccamaw Wrecking Company, towed the schooner to Smithville with the intention of turning the hull into a lighter (Wilmington Star, March 17, 1873).

Robert H. Beery, son of Capt. Benjamin Beery, also entered the shipbuilding business with his father at a shipyard at the foot of Castle Street. In August 1873 Robert contracted to construct a new pilot boat for William Sellers and Edward Piver of Smithville. The boat was to be 18 tons burthen, 42 feet in length, 13 feet beam, and 5 feet of hold. Robert Beery planned to construct three-masted vessels and pilot boats (Wilmington Star, August 20, 1873). On February 9, 1874, Benjamin Beery and son launched the pilot boat *Nellie B. Neff* from the foot of Church Street (Wilmington Star, February 10, 1874).

Benjamin Beery built during the summer of 1876 the yacht *Swamp Angel*. The new yacht measured 16 feet in length, with a beam of 7 feet (Wilmington Star, July 29, 1876). Benjamin Beery contracted to build another yacht, the *Arletta*, in 1878 for three of the employees at Hart, Bailey & Co.'s foundry (later Wilmington Iron Works). On July 9 the *Arletta* was launched by Beery from the Market Street dock. The yacht when completed measured 23 feet length of keel, 8 feet 3 inches in width of beam, and 25 feet overall. It was decked over with a cabin and schooner rigged (Wilmington Star, June 14, 28, 1878).

At the railway wharf of Capt. Samuel W. Skinner located at the foot of Nun and Church Streets, Capt. Robert Beery began construction on an oyster "sharpie" in 1881 for use on the Chesapeake Bay. The new sharpie was said to be "a model of strength and durability" when launched (Wilmington Star, January 25, February 6, 1881). Robert By April 1882 Beery completed construction of a lighter, four large flats, and a steam hoister at the shipyard at the foot of Castle Street. The flats and hoister were intended for use on river improvements being done by the Cape Fear Navigation Works (Wilmington Star, March 26, April 25, 1882). In May 1882 Capt. Robert Beery purchased from Elijah Ellis of New Bern, the 52-ton schooner *Agile* to be used as a wrecking vessel or lighter (Wilmington Star, May 26, 1882).

About October 1884 Capt. Benjamin Beery launched a large pilot boat at the yard attached to the dry dock of Thomas Evans. That vessel may have been the *Ann E. Beery*. The largest pilot boat built in Wilmington up to that date, the vessel measured 75 feet on deck, 19 feet wide, and had 8 feet depth of hold (Wilmington Star, June 24, July 31, 1884). The new steam pleasure launch *The Boss*, being built for Sheriff Manning, was nearing completion at Capt. Robert Beery's shipyard in November 1887. The pleasure yacht, built for strength and speed, measured 43 feet in length, 8 feet wide, and 4½ feet deep. It was built of native pine with live oak knees. The bow and transom were also of live oak, and the decking of juniper forward and aft. The launching of the vessel came on December 22, 1887, with the steam launch yet to receive its 10-horsepower oil engine. The large 36-inch mounted propeller was said to make the new vessel "walk the waters like a thing of life" (Wilmington Messenger, October 2, 1887, Wilmington Star, November 16, December 23, 1887). During the summer of 1888 Robert Beery constructed a steam yacht of about 50 tons called the *Little Winnie*. The new steamboat was 75 feet in length, 21 feet in width, and 14 feet of beam. The *Little Winnie* was used to carry about seventy-five passengers between Hummocks (Hammocks) and the Blackfish grounds at Carolina Beach on fishing trips (Wilmington Messenger, June 23, July 15, 1888).

By the following year the shipyard of Robert Beery at the foot of Castle Street was closed and the property belonged to the Northrop Sawmill. The Eagles Island shipyard was probably used only by small boatbuilders until 1911, when the Wilmington Iron Works purchased the property to construct its new Wilmington Marine Railway (Wilmington Messenger, April 26, 1892; Wilmington Evening Dispatch, July 11, 1916; Sanborn 1889:12). In the winter of 1890, Benjamin Beery left Wilmington to supervise the construction of a large marine railway and shipyard in Pensacola, Florida. Capt. Benjamin Beery died April 24, 1892 (Wilmington Star, September 28, 1890; Wilmington Messenger, April 26, 1892).

Morse and Ellis Boatyard (ca. 1860 - 1869)
Morse Boatyard (ca. 1869 - 1874)
The 1860 Kelley's Wilmington Directory lists Solomon Morse and a Mr. Ellis as boatbuilders at a yard located two blocks from the river on Second Street (between Orange and Ann Streets), where they constructed yachts. By 1869 Ellis had left the partnership and gone into business with a new partner. In November 1874 Morse built and launched the 26 ½-foot-long, 9-foot-4-inch-beamed *Mary Kenan*. The new clinker-built yacht, one of the longest in the vicinity, was said to carry 128 feet of canvas and to have been capable of transporting thirty to forty persons (Wilmington Star, October 3, November 6, 1874; Kelley's Wilmington Directory, 1860).

Ellis & Welch Boatyard (1869)
The 1869 Branson's North Carolina Business Directory lists Ellis & Welch as builders of boats on South Water Street in Wilmington. It is unknown whether Ellis constructed yachts at this site (Branson's 1869:112).

Bridges and Davis Boatyard (1869)
At the boatyard of Thomas W. Bridges and Thomas J. Davis in Wilmington, the sharpie *The Little Mary* was launched in the fall of 1869. The sharpie was 16 feet long, 5 feet wide with a mast 31 feet high, and carried 40 yards of sail (Wilmington Star, September 12, 1869).

Bryant's Boatyard (1874)
Colville & Co. Mill and Boatyard (ca. 1874 - 1877)
At a location near the wharf of the Colville & Co.'s mills, Duncan Bryant constructed in 1874 "two or three handsome pleasure boats, for family use" (Wilmington Star, May 13, 1874). In April 1876 a small skiff was being constructed by Henry Efamy at the sawmill of John Colville & Co. on Nutt Street (between Walnut and Red Cross Streets), later the site of the Champion Compress. The yacht was described as "a very handsome one, being of a different model from any yet seen in our waters." Two upper planks extended about 12 inches further at the bows than in ordinary yachts with a rudder

constructed beneath the boat. The unnamed yacht measured 19 feet in length and 6 feet width of beam (Wilmington Star, April 12, 1876).

A new steamboat, probably the *Colville*, was under construction at Colville's boatyard in February 1877. The steamboat was being built to replace the old steamer *Caswell*, then being used on the run between Wilmington and Bannerman's Bridge on the North East River. The new sternwheel steamer measured 70 feet in length. The Colville boatyard also constructed a flat for use in freighting on the North East River earlier that year. In November 1877 the steamer *Colville* was taken off the line between Wilmington and Bannerman's Bridge and sent to the Oconee River in South Carolina to begin service (Wilmington Star, February 8, November 9, 1877).

Lemmerman and Coney Boatyard (ca. 1874 - 1879)
Capt. Henry T. Lemmerman and Walter Coney gave notice in August 1870 that they planned to go into the ship lighterage business on Market Street. It may have been about this time that they also decided to construct vessels in Wilmington. The first ship known to have been built by the pair was the excursion boat *Experiment*. It had been virtually completed at the Wilmington yard of Lemmerman and Coney in May 1874. In preparation for leaving the business, Lemmerman and Coney offered for sale in January 1879 the steam tug *William Nyce*, 21 tons, length 56 feet, and breadth 13 feet, as well as ten lighters. The Heide family purchased the vessel (Wilmington Star, July 31, 1870, May 11, 1874, January 5, March 16, 1879).

Daniels Boatyard (Smithville and Bald Head Island, 1875 - 1876)
At Smithville on January 20, 1869, the boat manufactory, three boats, and all the tools of Daniels and Leher burned. The boatyard was likely rebuilt, as at least five years later Enoch Daniels was still building boats at Smithville. Daniels built the pilot boat *Rosa Scarborough* in late 1874 for Messrs. Bowen & Burriss of Smithville. In January 1876 Daniels constructed at his yard on Bald Head Island, another pilot boat, the *Henry Westermann*. The pilot boat was 41 feet in length of keel, 16 feet 8 inches in width of beam, and 5 feet depth of hold. A third pilot boat, the *Addie*, may also have been built by Daniels in 1885. This vessel measured 82 feet long, 19 feet wide, and drew 9 or 10 feet of water (Wilmington Journal, January 21, 1869; Wilmington Star, January 26, 1875, January 8, February 2, 1876; Wilmington Weekly Star, February 27, 1885).

Blossom & Evans Boat and Repair Yard (ca. 1879)
In April 1879 the "Empire Marine Sectional Dock," under construction at the Blossom and Evans boatyard was the focus of attention for many local Wilmington inhabitants. When completed, the floating dry dock was comprised of six sections, each 33 feet long by 70 feet wide. Each section had watertight compartments, with tanks on both sides 19 feet above the deck. While afloat, the first constructed section drew only 24 inches of water without ballast. The dry dock was capable of lifting a vessel with 240

feet of keel. ~~B~~By September the third section of the dock was about to be launched when it turned over. The accident, caused by a shift in the ballast, delayed the launch a week (Wilmington Star, April 8, 15, May 28, September 13, 1879).

Northrop's Mill Boatyard (ca. 1879 - 1906)
Garcia Boatyard (ca. 1890s - 1906)

Boatbuilding may have begun at the Northrop Mill yard between Queen and Castle Streets west of Surry Street in 1879 when S. G. Northrop built a catamaran called the *Banana*. Emanuel Garcia later constructed ships at this location. Historian Bill Reaves reports that Garcia arrived in Smithville in 1881, where he built many fine boats but moved during the early 1890s to Wilmington and constructed vessels at Northrop's Mill (Reaves 1978:111).

In 1894 Garcia built the steam yacht *Bessie May*. It measured 47 feet length of keel and 62 feet overall and was equipped with a steel boiler and brass propeller. The builder stated that the boat would make 15 knots an hour (Wilmington Dispatch, March 29, 1894). What may be a second *Bessie May*, 55 feet in length, and 9 feet in beam was reported to have been built by Garcia in June 1898 for parties in Port Royal, South Carolina. In early 1898 Garcia built a "substantial sloop" of 70 feet in length and about 18 feet in beam. The sloop was to run between Wilmington and Lockwood's Folly carrying cypress timber and shingles from Green Swamp in Brunswick County (Wilmington Semi-Weekly Messenger, March 29, 1898; Wilmington Dispatch, June 16, 1898).

Garcia built and launched the yacht *Vitesse* in early 1895. The sloop-rigged yacht was 20 feet in length, 9½ feet in beam, and constructed after the drawings of a Baltimore yacht (Wilmington Messenger, April 7, 1895). During 1896 Emanuel Garcia built the steam launch *Almont* for use by "Messrs. Powers, Gibbs & Co., to be run . . . between this city and their fertilizer factory, about four miles up the river." The boat measured 36 feet long, had a 25-horsepower engine, and was said to be able to accommodate about twenty-five persons when loaded. The vessel was launched from Northrop's Mill. In April 1897, a yacht built by Garcia said to be a "clipper" belonging to a Lieutenant Moore, underwent repainting and an overhaul at the Custom House. The yacht, known as the *Nixie*, or *Nexie*, was about 25 feet overall, with an 8-foot beam. Described as a "handsomely finished in natural wood" and varnished, the yacht carried over 175 yards of canvas (Wilmington Star, November 27, 1896; Wilmington Dispatch, March 11, April 27, 1897).

In addition to steam yachts such as the *Bessie May* or the *Boss*, Garcia also constructed at least two whaleboats. One of the whaleboats was a double-ender clinker-built made of juniper with ash gunwale strips, galvanized locks, painter ring, and a copper-sheathed keel and rudder. The dimensions of the vessel were 22 feet 6 inches overall and 4 feet 6 inches in beam. The other boat, a dinghy of juniper and ash, measured 15 feet in length (Wilmington Dispatch, October 28, 1897; Wilmington Messenger, October 29, 1897).

Emanuel Garcia's experience as a boatbuilder also included sailing vessels, particularly sharpies. Garcia built one sharpie-rigged yacht for Messrs. Worth of Wilmington and launched the yacht on August 25, 1898, from the Northrop Mill yard. The *Frolic*, described as "a handsome two-masted sharpie," was not a very large boat but had a large capacity. It measured 45 feet in length and had 12½ feet breadth of beam, with a depth of between 3 and 4 feet. The boat had a large cabin with plenty of berths and other conveniences for passengers. It reportedly took Garcia several years to complete work on the *Frolic* (Wilmington Star, August 26, 1898; Wilmington Dispatch, August 26, 1898).

Garcia constructed for a James S. Worth, at his boathouse on Surry Street a new naptha launch, the *Josephine*, during the summer of 1899. The *Josephine* was fashioned out of white cedar, juniper, and ash and powered with a 4-horsepower engine "of the latest model." It had a length of 27 feet, 5½ feet beam, and drew 2 feet of water. It was said that its deck was "nicely finished, being highly polished with all fastenings of brass, and is to be shaded by a pretty awning." The boat would accommodate fifteen passengers (Wilmington Messenger May 16, 1899).

One contemporary account relates the fact that Emanuel Garcia "probably constructed more pleasure and river commercial boats for the lower Cape Fear than any other man now living." The success of Garcia's boatbuilding business probably prompted him to hire contractor Thad F. Tyler in 1899 to build a new boat factory for him at the foot of Queen Street. The building was single frame, 20 x 80 feet in size, and had a metal roof and ventilator. Garcia equipped the factory with the latest and most up-to-date machinery for the construction of fast sailing yachts and other craft required by the trade of Wilmington (Wilmington Weekly Star, September 15, 1899). Within two weeks Tyler reported that the new boat factory for Garcia was "up and work is advancing." A month later work was completed on the 80 x 30 foot structure (Wilmington Dispatch September 25, October 23, 1899).

Garcia constructed boats at that location for only a year. He died of consumption at his home, 605 Surry Street, in early February 1901 (Wilmington Star, February 5, 1901). Five years after Garcia's death, Jim Brinkley built a yacht of juniper for the Sheephead Fishing Club at the Northrop boatyard. That vessel, named the *Sheephead*, measured 18 feet 6 inches in length with a beam of 4 feet 6 inches. The boat carried 50 feet of canvas (Wilmington Star, April 29, 1906; Wilmington Messenger, April 29, 1906).

Taylor's Steam Saw Mill Boatyard (ca. 1880 - 1889)

J. W. Taylor's Steam Sawmill was located at the foot of Walnut Street on the north side, as shown on the 1884 Sanborn map. Taylor may have been the individual that constructed a flat at the sawmill in 1880. The steam tug *Harold* towed the flat south to

Charleston for use as a navigational improvement (Wilmington Star, October 2, 1880). In April 1882 the Corps of Engineers made arrangements with Taylor to build two scows or lighters for dredging use on the Cape Fear river below Wilmington (Wilmington Star, April 28, 1882). Two months later, G. H. Ferris, contractor for the dredging of the river, also engaged the Taylor mill and boatyard for the construction of a steam dredge and mud scow. The specifications for the steam dredge *Vim* were 90 feet by 36 feet on the deck and a depth of 9 feet. Measurements on the scow were 90 feet in length, 24 feet wide, and 9 feet deep, with a capacity of 250 yards. Ferris' own employees completed work on the vessels (Wilmington Star, June 2, 17, 1882).

During the summer of 1882, J. W. Taylor purchased the old movable cotton press *Davenport*, constructed by J. D. Stanley of Wilmington. That vessel was converted into a steam lighter and furnished with a set of double engines and boilers and other equipment to make a complete floating sawmill (Wilmington Star, July 13, 1882). In August a water scow had been completed at the Taylor mill yard. The scow, equipped with a tank 19 by 42 feet in size and 5 feet 9 inches deep, was used to furnish fresh water to tugs and dredges operating near the mouth of the Cape Fear River. The launch of the large scow came on October 12, 1882 (Wilmington Star, August 1, October 12, 1882).

In addition to the dredges, scows and flats generally constructed at the Taylor mill yard, the construction of a sharpie was also undertaken in 1882. Fire destroyed a "large and handsome sharpie," being built for William Ellis at the yard in December (Wilmington Star, September 24, December 28, 1882, July 20, 1883). Although no further reference to ship building at the Taylor yard have been found, the Taylor shipyard is shown as late as 1889 on the Sanborn map on the river between Nun and Church Streets.

Evans and Skinner Marine Railway (ca. 1880 - 1901)
S. W. Skinner and Son Shipyard and Marine Railway
Louis H. Skinner Shipyard and Marine Railway (1901 - 1911)
Cape Fear Marine Railway Company (1911 - 1918)
Broadfoot Iron Works (1919 - 1960)
Barr Boatyard (ca. 1930s - 1960s)

After the Civil War, Capt. Samuel W. Skinner became associated with the Cape Fear Steamboat Line (Wilmington City Directory, 1866-1867). By 1879 Captain Skinner conducted a salvage expedition to recover a steamboat sunk in the Brunswick River during the war. The first ship construction occurred the following year. In April 1880 Captain Skinner, in association with Henry C. Cassidey, built a little steamer at the marine railway of Evans and Skinner, located on the riverfront between Nun and Castle Streets. The steamer measured 50 feet in length and 12 feet in width. It was flat-bottomed and drew only 7 or 8 inches of water. The Bladen Steamboat Company conveyed passengers on their steamer to and from Wrightsville Beach (Wilmington Star, August 16, 1879, April 20, June 3, 1880).

In early 1881 the first of three oyster sharpies was under construction at the Skinner marine railway shipyard. The sharpie, said to be "a model of strength and durability," was constructed under the supervision of Capt. Robert H. Beery. The remaining two sharpies were to be completed under the supervision of the owner, Mr. A. Thomas of New Haven, Connecticut (Wilmington Star, January 25, February 6, March 15, 1881).

In April 1881 a portion of the old ironclad *Raleigh*, built in Wilmington at the Cassidey shipyard, was brought to Captain Skinner's shipyard. The piece of wreckage proved to be the front section of turret (Wilmington Star, April 6, 1881). Another vessel to be raised by Captain Skinner in 1881 was the steamer *Governor Worth* which snagged and sank in the Cape Fear River near Council's Bluffs above Fayetteville earlier that year. The *Governor Worth*, when brought to Wilmington for repairs on the marine railway at Skinner's yard, had considerable damage to the upper works. The hull and machinery were only slightly damaged. Repairs began in April and were completed by July 1881. The *Governor Worth* had previously made runs on the Cape Fear River between Fayetteville and Wilmington (Wilmington Star, April 8, 12, June 3, July 19, 1881).

The steam dredge *E. V. White* of the Cape Fear River improvement fleet was on Capt. S. W. Skinner's marine railway in June 1882 being sheathed with galvanized iron as a protection for the hull (Wilmington Star, June 13, 1882). In April 1883 the new barge or "gondola" built for Sheriff Manning was completed. Captain Skinner launched the pleasure boat on April 22, 1883. It was 40 feet long and 12 feet wide, with a cabin 15 by 9 feet (Wilmington Star, April 22, 1883). On the first day of August 1884, the pilot boat *Gracie* and the schooner *Mary Wheeler* were on the ways at Captain Skinner's shipyard for overhauling and painting. The marine railway had undergone reconstruction over the past three months and was again in use. From its foundation throughout new irons and cradles formed the rebuilt railway. A marine railway at this location is shown on a 1884 Sanborn map. An 1888 account describes the marine railway as being 175 feet long and capable of supporting a craft of just over 200 feet in length. There were two engines of an aggregate of 2,500 horsepower in use. The first vessel to be taken out of the water after the construction work was the steamer *Wave*. At his yard Skinner had recently built a new lighter for use by the steamer *Bladen* (Wilmington Weekly Star, August 1, 1884; Sanborn 1884:6; UAU files).

In early 1885 Skinner constructed the self-propelling steam hoisting machine and pile-driver *Hercules* at his shipyard. A hammer weighing 2,500 pounds for driving and a large steam pump for sinking piles in the sand equipped the vessel (Wilmington Star, February 4, 1885). Captain Skinner had under construction in May 1886 a new Cape Fear River steamboat for the Bladen Steamboat Company (Wilmington Star, May 18, 1886).

During 1887 Skinner built the passenger craft barge *Carolina*, a government scow, and a large lighter for the steamer *Murchison*. New ship construction also included a steamboat to be used between Fayetteville and Wilmington. When completed, the steamer measured 110 feet in length and 18 feet in beam (Wilmington Star, August 12, October 15, 1887; Wilmington Weekly Star, November 4, 1887). In 1888 the following vessels were repaired at the marine railway: the schooner *Roger Moore*, the pilot boat *Louise F. Harper*, the schooner *R. S. Graham*, the tug *Alexander Jones*, and the British-owned barque *Maury* and steamship *Parklands* (Wilmington Star, July 22, 1887, May 29, 31, June 12, August 29, September 8, 14, November 23, 1888).

In July and August 1889 a large scow was built for R. Moore and Co. at Captain Skinner's shipyard for use on the river improvements by the government. The scow was 96 feet in length, 14 feet wide, and 8 feet in depth. Capt. Benjamin Beery supervised the work on the vessel. In late November a new steamboat for use on the Pee Dee River was also under construction. The steam tug *Blanche*, steamer *Bessie*, government tug *James T. Easton*, yacht *Lorna*, dredge boat *Alabama*, and German barque *Knudsvig* received repairs at the yard during the year (Wilmington Messenger, April 19, July 30, 31, August 31, 1889; Wilmington Star, March 2, 7, November 26, 1889).

A small steam launch, the *Waccamaw No. 1*, was built at Captain Skinner's shipyard in January 1890 for government work in South Carolina, and a large scow was launched from the Skinner shipyard on August 2, 1890. The scow, or barge, was built for the Cape Fear & Yadkin Valley Railroad Company to carry six railcars across the river from Point Peter to the city. A second new scow built by Skinner went into use in November (Wilmington Star, July 17, 23; August 2, 3 and November 12, 1890). Later that year the S. W. Skinner Company received a contract from the Spanish-American Iron Company of Cuba to build two large scows and a big crib. The two scows were each 72 feet in length and 24 feet wide. All three were of heavy lumber and treated with creosote. In February 1891 the steam tug *Colin* towed the scows to a port in Cuba (Wilmington Messenger, September 19, 1890; Wilmington Star, February 17, 1891).

In August 1891 a writer for a local newspaper described in flowery verse the launching of a mud scow from the Skinner shipyard by saying "There was no bottle of rarest vintage broken over the bow by a charming damsel amid the shouts of thunderous multitudes. Nor was heathen mythology ransacked for nomenclatural christening. . . ." This "buoyant as a duck" scow had dimensions of 100 feet in length, 24 feet width, and 9 feet in depth (Wilmington Messenger, August 29, 1891). At the same time the scow was launched, the Skinner shipyard had on its ways an oyster sternwheel steamboat. The vessel, under construction for the Omeler Oyster Company, measured 100 feet in length, 22 feet wide, and 5 feet deep (Wilmington Messenger, August 29, 1891).

Little information is known about shipbuilding activities at the Skinner shipyard during 1893 or 1894. This lack of information is supported by the 1893 Sanborn map which shows the S. W. Skinner & Co's shipyard as "Not in Operation" (Sanborn 1893:11).

Work appears to have begun again at the shipyard in 1895. On July 30 Captain Skinner launched a large lighter built by him for the Cape Fear & Yadkin Valley

Railroad Company for use in transporting railcars across the river. Earlier that year the small schooner *Chief*, owned by Samuel's son, Louis Skinner, sank at its wharf at Captain Skinners shipyard (Wilmington Messenger, July 31, 1895; Wilmington Star, March 26, July 31, 1895). The steam yacht *Pastime*, owned by H. G. Latimer, was upon the shipways of the Skinner shipyard in December 1895 for overhauling. In 1897 the British schooner *Dove*, the three-masted schooner *Anne Stevens*, and the burnt Swedish barkentine *Verdandi* were on the ways at Skinner's yard for repairs (Wilmington Messenger, December 7, 1895; Wilmington Evening Dispatch, January 25, February 19, 1897).

During late 1899 and most of 1900, Capt. Samuel Skinner was engaged in floating vessels cast ashore on the Florida coast following a hurricane (Wilmington Dispatch, September 9, 1899, June 15, 1900). One of the vessels that underwent repair work at the shipyard early in the year was the schooner *S. P. Hitchcock*. The government inspection boat *Mary Lily* and the barge *Maria Dolorer* were other vessels repaired at the Skinner shipyard in 1900 (Wilmington Star, June, 2, November 9, 1900; Wilmington Evening Dispatch, March 17, 1900).

Captain Skinner gave notice in October 1901 that he had transferred to his son, Louis H. Skinner, his business at the marine railway and of repairing vessels, wharf building, pile driving, and wrecking. After twenty-five years Captain Skinner left the ship repair business. His son, Louis, who had been a partner for several years, thereupon conducted the shipbuilding and repair work at the leased Skinner yard (Wilmington Messenger, October 24, 1901). In early 1902 the schooner *Mary L. Crosby* was on the ways at Louis Skinner's shipyard receiving a new mainmast (Wilmington Dispatch, February 15, 1902).

Captain Skinner may have kept a hand in the shipbuilding business as late as 1903. Early in that year he built three scows at the foot of Queen Street. The following year he purchased the business of Cumming and Swinson and began copper repair and manufacturing under the new firm's name of Carolina Copper Works. Captain Skinner continued with that firm until his death three years later on November 5, 1907 (Wilmington Star, January 6, 1903, October 14, 1904; Wilmington Dispatch, November 6, 1907).

Two steamers went on the Louis H. Skinner shipways in early 1904 for repairs-the *Highlander* and the *Wilmington*. In late May 1905 the new pilot boat *Calypso*, a yacht 57 feet long and 17 feet wide, was pulled upon the ways at the yard to have a copper bottom attached. The first steel-hulled boat ever constructed in the state was the steamer *C. W. Lyon*, launched from the Skinner shipyard on November 13, 1905. The steamer was 125 feet long, 25 feet in the beam, with a sternwheel and capacity for fifty passengers. Skinner repaired at his yard a broken propeller on the steamer *Charles M. Whitlock* in January 1906 (Wilmington Star, January 31, 1904; Wilmington Messenger, June 2, November 14, 1905, January 26, 1906).

Louis Skinner announced on November 20, 1906, that he had purchased the waterfront property between Nun and Church Streets used by the Skinner Marine Railway and Shipyard that he and his father had leased. Skinner purchased the yard from the heirs of the Grainger estate with the intention of constructing a modern shipyard on the premises. Two scows are known to have been constructed there in late 1907 for the U.S. Army Corps of Engineers. Nothing of the Skinner shipyard remains (Wilmington Star, November 21, 1906; Wilmington Dispatch, November 20, 1906).

The government tug *Coquette*, one of several tugs used for improvements on the Cape Fear River, was at Skinner's marine yard in early 1910 for overhauling prior to the season's work. The pleasure yacht *Courier* was placed in dry dock at the shipyard for a new rudder the following month (Wilmington Dispatch, January 12, February 7, 1910). The number of ships requiring repair work exceeded the available facilities by 1911. Several interested ship masters, owners and merchants of the town suggested that the ship repair capabilities provided in Wilmington be improved.

Deemed the only suitable place for a larger and more modern marine railway, Louis Skinner offered the property for sale to the city in May 1911. One effort made to improving and enlarging the facilities was the purchase of adjoining property. In September 1911 Charles W. Worth, working with Louis Skinner, purchased the property of the Darby estate on Surry Street, between Church and Castle, which adjoined the Skinner shipyard providing nearly 600 feet of waterfront. Two months later, on November 17, 1911, the Cape Fear Marine Railway Company was chartered with the goal of building a new 1,000-ton railway on the now expanded shipyard property. The principal incorporators of the new company were: James Sprunt, Louis Skinner, H. C. McQueen, C. W. Worth, J. W. Harper, and three others. Work on constructing the larger marine railway and seven new buildings, a machine shop, foundry, blacksmith shop, boiler rooms, powerhouse, pattern room, and an office began in February 1912 between Church and Castle Streets. The Cape Fear Marine Railway Company conducted ship-repair operations at the site from 1913 to 1918. The following year Broadfoot Iron Works purchased the yard. The Broadfoot company was very active in the local ship-repair business until after World War II. During the war it converted large fishing vessels into navy minesweepers and machined drive shafts for Liberty ships. From the 1930s to the 1960s George W. Barr repaired small river boats, tugs, and dredge tenders at the yard. Barr specialized in the repair of steam engines and early diesel engines (Wilmington Star, May 20, September 13, 1911, February 28, 1912; Wilmington Evening Dispatch, November 20, 1906, November 18, 1911; Dunn n.d:4-5; Per. Comm. Charles Wilson, June 25, 1994; USACOE 1948c).

Evans Shipyard (ca. 1888 - 1891)

During the spring of 1888 two sections of a dry dock constructed at the Evans Shipyard sank while under tow by the steamer *Scythian*, bound for Port au Prince, Haiti. Two new sections of the dry dock were under construction at the Evans shipyard by October to replace those lost at sea. During April, Thomas Evans was also at work rebuilding the

U.S. steamer *Oklahoma*, used by Captain Bixby of the Corps of Enginners for river and harbor work. The old hull of the *Oklahoma* was to be used as a steam yacht being constructed by Evans for himself (Wilmington Star, April 20, 1880, March 30, 1888, October 17, 1888; Wilmington Messenger, April 19, 1888).

In May 1889 Thomas Evans added a ship railway at the old dry dock yards for use in shipbuilding and repair work. The steam tug *Col. Wm. P. Craighill* was then on the ways being rebuilt for use as a harbor tug (Wilmington Messenger, May 8, 1889). In June 1891 Evans constructed at his shipyard in the northern part of the city the steamboat *Emma Gleaves*. The vessel measured 38 feet in length, 12 feet beam, and had a propelling power of 7½ miles per hour. The steamboat was intended for use to tow flats on New River for the New River Oyster Co. (Wilmington Messenger, June 7, 1891).

Heide's Boatyard (1881)

Henry H. Heide built a sharpie known as the *Roger Moore* at Wilmington during 1881. The following year W. E. Davis & Son purchased the vessel, overhauled it, and placed it in service as a fish boat. Mr. Heide graduated from Eastman Commercial College, Poughkeepsie, New York, in 1878 and was the son of Rudolph E. Heide, Danish vice-consul, and owner of the ship brokerage Heide & Co. (Wilmington Star, October 25, 1878, March 31, 1882; Wilmington Messenger, June 18, 1895).

Wilson Sawmill Boatyard (1883)

A. Y. Wilson opened his saw & planning mill in late 1882 between Dawson and Wright streets. The mill appears on Gray's city map (1872) and on an inset of the 1884 Sanborn map. In early 1883 Sheriff Manning had constructed at the Wilson sawmill a "fishing and hunting boat or barge." The completed boat measured 30 feet long and 12 feet wide. It had a well-equipped cabin 15 by 9 feet. The boat was oar propelled, but towing was the general means of moving the vessel (Wilmington Star, October 8, 1882, January 7, 1883; Gray 1872; Sanborn 1884:6).

Summerell Boatyard (1883)

George M. Summerell's boatyard was located adjacent to J. W. Taylor's saw and planing mill in Wilmington near the foot of Walnut Street. In 1883 Summerell received a government contract to build five scows. One of the scows Summerell built was 80 feet in length and 28 feet wide. The additional four scows were 60 feet in length and 16 feet wide and 4 feet in depth. The five scows were to be completed in forty-five days. Two of the scows were launched in early September, and the last was completed on October 11, 1883. Taylor's sawmill appears on the 1884 Sanborn maps (Wilmington Star, August 21, October 10, 1883).

Government Shipyard and Marine Railway - Queen Street (ca. 1884 - 1910)
U.S. Engineer Yard - Eagles Island (1910 - present)

In December 1884 the government steam tug *Easton* was hauled out of the Cape Fear River at the foot of Queen Street to undergo extensive repairs at the government shipyard. At the same location Capt. Henry Bacon, who had supervised the closing of New Inlet, constructed two large flats (Wilmington Star, December 24, 1884). In April 1896 the U.S. snag boat *H. G. Wright* was hauled upon the marine railway at the government yard for repairs under foreman Robert L. Robbins. A large scow constructed at the government yard was launched on February 10, 1898. The scow was 84 feet 8 inches in length, 26 feet 3 inches in width, and 10 feet 3 inches deep. It was capable of carrying 450 tons of mud and sand removed from the river by the dredge *Ajax*. The Government yard appears on the 1898 Sanborn map at the river shoreline in front of the Chadbourn Lumber Company. The dredge *Ajax* was in the yard receiving a new hull cast in October 1900 (Wilmington Messenger, April 7, 1896, February 11, 1898; Sanborn 1898:16; Wilmington Star, October 31, 1900).

When the Chadbourn Sash Door & Lumber Company completed construction on a new mill in January 1908, the Government yard was moved from between Queen and Wooster Streets one block farther south. The following year plans were implemented for moving the yard across the river to Eagles Island. The clamshell dredge *Ajax* began dredging for extensive wharves at the new property on the west side of the river nearly opposite Northrop's Mill on October 29, 1909. The new U.S. Army Corps of Engineers site was approximately 800 feet square and had the addition of wharves, ways, and buildings (Wilmington Star, December 10, 1908, October 28, 1909; Wilmington Dispatch, October 28, 1909). An early 1909 Army Corps of Engineers map shows the proposed location of the engineer yard. The Sanborn maps for the following year show the government yard at the foot of Queen Street (USACOE 1909; Sanborn 1910:16).

Work on filling in the new government docks on Eagles Island, opposite Castle Street, was completed in September 1910. Between 35,000 and 40,000 cubic yards of material was removed from the river by the government dredges *Ajax* and *Hercules* from slightly downstream of the yard and loaded on scows. After being towed into position, powerful pumps aboard the *Jacksonville* then deposited the material from the scows into the 300-foot-long by 500-foot-wide docks. The following week the Corps removed the machinery and buildings from the old government yard at the foot of Queen Street and transferred it to the new Eagles Island yard (Wilmington Dispatch, September 14, 1910).

Wessell Boatyard (ca. 1889 - 1902)

Charles H. Wessell operated a boatyard on Water Street at the Cape Fear and Yadkin Valley Railroad depot in the northern part of the city. Wessell launched the new steamer *Anna* from his yard on May 17, 1889. Built by Sterling Salling for Wessell, the *Anna*, also referred to as the *Annie*, was used as a freight and towboat on the Cape

Fear and North East rivers. The steamer measured 75 feet in length and 16 feet in width. The *Anna* burned and sank at the city on October 15, 1891, was raised and repaired but burned again in late February 1899 (Wilmington Messenger, May 8, 18, 1889; Wilmington Weekly Star, October 16, 1891; Wilmington Star, March 1, 1899). On May 17, 1898, a 100-ton deck-lighter was launched from the Wessell boatyard. The lighter was intended for use in moving phosphate rock and shingle blocks (Wilmington Star, May 17, 1898).

At his wharf at the foot of Ann Street, A. D. Wessell, the brother of Charles, completed construction of a "excursion barge" in June 1900. Wide windows and comfortable seats covered the 350-passenger-capacity barge. The tug *Imperial* towed the barge on excursions (Wilmington Messenger, June 19, 1900). Capt. Charles Wessell spent most of his life in the towing and lighterage business but also continued occasionally to construct vessels until at least 1902. That year Wessell planned the construction of a new passenger and towboat. Wessell retired from the business in 1917, selling his interest to the established Stone & Company (Wilmington Star, November 13, 1902; Wilmington Dispatch, August 24, 1917).

Piver Boatyard (1897)

The new ferryboat *Virginia Taylor* made its appearance on the Cape Fear River on October 19, 1897. The ferryboat, named for a daughter of Col. Walker Taylor, was built by E. J. Piver, of Southport. The new vessel, constructed of red bay, white oak, juniper, and ash, could carry twenty-five passengers (Wilmington Star, October 19, 1897; Reaves, 1990:94)

Otto's Boatyard (1898)

In February 1898 at the foot of Walnut Street Capt. Robert Otto began construction of a two-masted sharpie called the *Annie Otto*, named for his wife. The sharpie would be used for guests of the Seashore Hotel at Wrightsville Beach. The *Annie Otto* was 35 feet in length, with a depth of 26 inches in the center and 31 inches at the bow and carried a 10-foot centerboard. The pleasure craft was capable of carrying forty passengers (Wilmington Messenger, February 24, 25, 1898).

Whitlock Ship Repair Yard (ca. 1898 - 1904)

Cumming's Mill Boatyard (1904 - 1910)

The steamer *General Thom* is known to have had its boiler fixed at the repair yard of Mr. Charles M. Whitlock during the summer of 1898. The 1898 and 1904 Sanborn maps show that Charles Whitlock had a warehouse on the southwest corner of Dock and Water Streets. In 1904 Preston Cumming added a boatbuilding department to his mill at the same location as the Whitlock ship-repair facility. The 1884 Sanborn map shows that Mr. Cumming maintained a gristmill at that location; by 1904 the mill is shown as a planing mill. The main feature of the facility was the naptha and steam-launch building. Also maintained at the mill were a rowboat and sailboat building (Wilmington Evening Dispatch, April 14, 1904; Sanborn 1884:2 and 1904:13). There is no evidence that any vessels were constructed at this location. In 1910 the facility was used as a machine shop (Wilmington Star, June 1, 1898; Sanborn 1898:11, 1904:12 and 1910:13).

Southport Pilots Boatyard and Marine Railway (ca. 1902 - 1905)
In 1902 a small marine railway was built below the pilots' wharf at Southport for the repair of vessels of 60 tons and under (Wilmington Messenger, May 20, 1902). The *Nan Patterson*, built by five Southport pilots in September 1905, was intended for use as a piloting and fishing boat. The Southport Fire Committee, however, may have purchased the *Nan Patterson* to be used as a fireboat. The vessel measured 51 feet long and 12 feet in beam. The vessel was equipped with a 27-horsepower gasoline engine as well as sails.

Wilmington Iron Works
Wilmington Marine Railway and Shipyard (ca. 1905 - 1924)
The Wilmington Iron Works, a fixture of the city since 1856, stated that it would enter the boatbuilding business on a full-time scale in 1905, although actual ship construction may have not begun until 1911, the year in which a new marine railway was built. The Wilmington Iron Works purchased in 1911 the site for the new Wilmington Marine Railway on Eagles Island, nearly opposite Dock Street. The property, 730 feet by 1,000 feet of deep water frontage, was located near the government yards and ran in a southerly direction. The site of the Wilmington Marine Railway was the same as the old Beery Shipyard, built in 1846. The Iron Works put into shape as an auxiliary plant just south of the launch ways, one of the marine railways operated at the Beery facility. Small-sized vessels were hauled out on the the older railway. The property, partly within the corporate limits of the city, was south of the adjoining Diamond Steamboat & Wrecking Company land. The Wilmington Iron Works constructed a wharf along nearly the whole length of the site (Wilmington Dispatch, October 22, 1916).

The site for the marine railway, or "railway dry dock," was the most eligible along the entire harbor front. Construction of the Wilmington Marine Railway began in October 1911 by H. I. Crandall & Sons of Boston, experienced railway contractors. Operations at the railway, capable of hauling out a vessel up to 2,000 tons, began in May 1912. The facility could also repair two schooners at a time, as well as perform iron repair work at the auxiliary plant (Wilmington Star, September 28, October 22, 1911). The following newspaper account written in 1912 describes the method used to haul vessels out of the river for repairs:

> The vessel is guided into [a] cradle and when in an exact straight line and her bow is between guide posts, also protruding from the water, the 'following blocks' are pulled close in to the sides of the craft and she is

> then ready for the 'tall timber'. A signal is given to the engineer at the power station; large gears are set to work and slowly the 'cradle' with its mammoth burden is seen to approach the ways and gradually lift itself from the water (Wilmington Star, July 14, 1912).

The first vessel to go upon the railway was the tug *Reliance*, which was scraped, repainted, and have its rudder repaired on May 11, 1912. The tug was soon followed by work on the steamer *Wilmington*. Within the next few months of service, the Wilmington Marine Railway had worked on the schooner *Fortuna*, 1,600 tons; the *Greenleaf Johnson*, 1,000 tons; the schooner *Stephen G. Loud*, 1,000 tons; and several other large vessels (Wilmington Star, January 13, May 12, July 14, 1912; Wilmington Dispatch, October 2, 16, 1911, November 21, 1912).

Little is known about the shipbuilding venture until 1915, although the company had previously built the steamer *C.W. Lyon* for the Tar Heel Steamboat Company at its location on the east side of the river (Wilmington Messenger, November 14, 1905). About June 1915 the Wilmington Iron Works began construction of a new river steamer, the *A. P. Hurt,* for the Planter's Steamboat Company, and planned to hav it ready by October. The shallow-draft 100-ton *A.P. Hurt* was intended for use on the Cape Fear River between Wilmington and Fayetteville (Wilmington Evening Dispatch, August 21, 1915). The Wilmington Marine Railway Company is noted on the 1915 Sanborn map. A large and small marine railway are shown.

The "new industry" continued in 1916 when Capt. Edward P. Bailey, president of the Wilmington Iron Works, received a contract for the company to build two schooners at its marine railway on Eagles Island (Wilmington Star, May 18, 1916; Wilmington Dispatch, May 17, 1916). The new schooners, originally described as being 238 feet from stem to stern and about 50 feet in width, were of the "bald-top" type. The vessels were constructed simultaneously of North Carolina long-leaf yellow pine with decking and spars of Oregon pine. The 2,000-ton schooners were built for a New York firm (Wilmington Evening Dispatch, July 11, 1916, January 2, 1917).

The keels to the two large four-masted schooners were laid in July 1916 under the supervision of John Ryan, the regular shipbuilder and repairer of the Wilmington Iron Works (Wilmington Dispatch, June 11, 1916). By late December 1916 work on the schooners was barely under way. The sternpost and stem were fitted and all the frames were in place by early 1917. The still unnamed schooners were to each be auxiliary powered by two 400-horsepower Winto semidiesel engines (Wilmington Dispatch, December 28, 1916, January 2, 1917). On May 18, 1917, by mutual agreement, completion of the vessel was turned over to the Arthur P. S. Naul, along with assistance of a master builder, Capt. Nelson Ingalls, and a naval architect, Andrew Gilmour. It was at that time that the Wilmington Marine Railway boatyard began to be referred to locally as the "Naul shipyard" (Wilmington Star, June 9, October 7, 1917; Wilmington Dispatch, October 7, 1917).

By June 1917 the two auxiliary schooners were caulked and ready to be launched (Wilmington Star, June 9, October 7, 1917). The name of the vessel was still withheld, although its name was to be taken from Long Island Indian legend meaning "sweet water" (Wilmington Star, October 7, 1917; Wilmington Star, January 22, 1975). When the blocks were knocked out at about 4:30 P.M. the ship would not move down the ways. The tug *Navassa* was brought in to pull the schooner into the water but failed by breaking its cable twice. The launching was postponed until the following day. At shortly before 5:00 P.M. on October 10, the first of the two schooners was gracefully launched into the Cape Fear River (Wilmington Star, October 11, 1917). At last the name of the schooner was released-the *Hoppauge*; one local writer claimed that it was "the city's first ship in a century," while another stated that it was the "first Wilmington built schooner to be wedded to the waters in the past half century" (Wilmington Star, October 8, 14 1917). The *Hoppauge* was afloat only a short time before it fell victim to a German submarine in early 1918 (Wilmington Star, June 7, 1918; Wilmington Dispatch, June 9, 1918).

The second schooner, the *Commack*, slipped from the ways of the shipyard into the river opposite the foot of Orange Street on March 12, 1918. The launching of the *Commack* was filmed and the resulting movie was distributed and shown throughout the nation (Wilmington Star, March 13, 24 1918). The four-masted vessel ended its career when it was wrecked off Sandy Hook in January 1925 (Wilmington News-Dispatch, February 2, 1925).

With the increase in the size and number of vessels being worked on at the yard, the approach to the railway needed to be deepened. During July 1920 the U.S. suction dredge *Croatan* was secured for a few days work to deepen the river for larger boats, and in December the dredge *Henry Bacon* was employed. One of the initial larger vessels to take advantage of the improvement to the marine railway facility was the concrete freighter *J. C. Sawyer*. That vessel had the distinction of being the first concrete ship hauled upon a Wilmington railway for maintenance (Wilmington Star, February 3, 1917; Wilmington Dispatch, July 21, September 13, December 19, 1920).

In 1923 the Wilmington Iron Works secured a contract for the construction of a steel barge. The barge measured 60 feet long, 22 feet wide, and 4 feet deep (Wilmington News, March 29, 1923). That contract was immediately followed by another for the construction of three other steel barges for the United States engineering department. One of the barges was constructed to be used to replace the wooden hull of the snag boat *General Wright*. The machinery from the old snag boat *Contentnea* was installed in the hull (Wilmington Evening Dispatch, August 7, 1923). The other two barges were used in general district work (Wilmington News, March 29, 1923).

The Stone Towing Company purchased in January 1924 the Wilmington Marine Railway Company plant on Eagles Island after successfully serving the maritime community of Wilmington for several years. Today, only the large and rusted iron gears of the machinery used to pull vessels upon the ways are left to be seen (Wilmington Star, January 24, 1924).

Gaskill Boatyard (1910)
In April 1910 Capt. C. D. Maffitt authorized the boatbuilder F. T. Gaskill to construct the steam gasoline yacht *The Smart Set* at the wharves between Princess and Chestnut Streets. The trim craft measured 24 feet overall and had an eight foot beam. The boat had a seating capacity for twenty-five passengers. The yacht was launched in late April or early May (Wilmington Dispatch, April 22, 1910).

Hamme Marine Railway (1915 - 1946)
In early 1915 R. F. Hamme Jr. purchased a tract of land on Eagles Island opposite Ann and Nun Street in Wilmington from the Suburban Land and Development Company. The ten to fifteen acres of property were located directly adjacent to the south side of the Wilmington Marine Railway and Shipyard. Later that year Hamme constructed a marine railway on the property for "the repair of all boats from the size of a tug vessel down to the smallest craft" (Hall 1980:342; Becton 1918).

R. F. Hamme and his son, R. F. Hamme Jr. announced on July 23, 1915 construction of the new 100-ton marine railway. Work on clearing the property had begun a month earlier. The cradle built to hold the ships measured 26 feet wide by 72 feet long, with a draft of 8 feet on the rear and 3 feet on the front. It was noted that nothing larger than a tugboat could be accommodated on the railway. In addition to the marine railway, a large boathouse 80 feet long and 27 feet wide was constructed of corrugated iron contained the woodworking machinery and other equipment. By January 1916 the boathouse construction was nearly complete. While the boathouse was not yet finished, some vessels were repaired upon the marine railway. The railway operated with a large hand-powered windlass and could handle small tugs, launches, and lighters (Wilmington Evening Dispatch, July 23, 1915, January 11, 1916; Hall 1980:342).

R. F. Hamme petitioned the city council in October 1917 to have the license tax reduced on his "miniature marine railway." He stated that it was unfair for him to pay the same amount as the larger marine railways which were used to haul out ocean-going vessels (Wilmington Star, October 25, 1917). Whatever the outcome in the city council over the tax debate in 1917, R. F. Hamme decided to expand his facility with the help of his brother, Fred Hamme. On April 12, 1919, the Hamme brothers purchased 100 feet of waterfront property adjoining their marine railway, with the purpose of building a larger 500-ton marine railway. Construction of the larger facility did not begin until over a year later, however. On the new railway, to be operated by electricity, vessels of up to 800 tons and 150 feet in length could be repaired (Wilmington Dispatch, September 5, 1920).

A first was recorded at the Hamme Marine Railway in August 1922. A seaplane was hauled completely out of the water upon the railway to have a leak fixed in one of its pontoons. During the spring of 1923 the tug *Kingston*, wrecked at Point Peter, was raised and brought to the Hamme marine railway for repairs. The tug had run upon submerged pilings in the fog and punched several holes in its bottom (Wilmington Dispatch, August 24, 1922; Wilmington News, March 13, 1923).

R. F. Hamme purchased a strip of land 150 x 300 feet on Eagles Island, opposite the foot of Church Street, where he built a modern residence. The structure was the first home built on the island. The Hammes moved into their home, "Edgewater," the following summer (Wilmington Dispatch, August 30, 1923; Wilmington Star, June 1, 1924).

The new owners of the sternwheel steamer *Thelma* brought the vessel to the Hamme marine railway in February 1924 to be rebuilt. The steamer had its hull repaired and its bow sharpened at the yard, while the Wilmington Iron Works repaired its boiler and engines. The *Thelma* drew 15 inches of water and carried 53 tons of freight and was placed on a new run to Fayetteville (Wilmington Star, February 28, 1924).

Hamme conveyed his marine railway to J. P. Pretlow on June 2, 1946, and retired from the business. Suspiciously, eight days later a blaze of unknown origin swept through the Hamme Marine Railway and adjacent Stone Towing Company yard. The damaged yard was back in business by December. During that month the twin-screw yacht *Wasp*, used as a sub chaser by the navy during the war, underwent a complete overhaul and was lengthened. The 92-foot *Wasp* constructed from mahogany, was converted to a pleasure yacht after the war. The vessel, owned originally by industrialist William Wrigley of Chicago, was owned by J. Suttles of Houston, Texas, at the time it was overhauled. Pretlow sold the Hamme Marine Railway and Drydock, as it was still known, to Buddy Lynch, who eventually closed the shipyard in the 1960s. R. F. Hamme Jr. died in May 1983 at the age of ninety-seven years (Hall, 1980:342; Dunn n.d:3; Wilmington Star, December 4, 1946, May 17, 1983).

Naul Shipyard (1917 - 1918)
Suffolk Shipbuilding Company Shipyard (1918 - 1920)
Warcrete Shipbuilding Company (leased 1918 -1919)
R. R. Stone Towing Shipyard (1920 - 1921)

Arthur P. Naul operated two shipyards at Wilmington and possibly a third at Point Peter. Through a cooperative deal the Wilmington Iron Works on Eagles Island administered one shipyard, while another was located on the Northeast River just below Smith Creek. For a brief period Naul may have built ships on his property on the Northeast River above Point Peter. While the construction of the schooners on Eagles Island at the Wilmington Iron Works, or Naul shipyard, was under way, Arthur Naul began steps to open a second yard on the Northeast River. In early August 1917 the Camp Manufacturing Company concluded a deal with Naul that sold six acres south of

Smith Creek on the east side of the river. A part of the Camp property had been under lease to J. N. Bryant, who operated a sawmill at that location. Within a few days operation to clear the property was begun, and on August 22 it was announced that the Naul Shipyard Company was incorporated and would begin building four ship construction ways (Wilmington Star, August 3, 5, 8, 22, 1917; Becton 1918). In addition to operating a shipyard, Naul maintained a boat line (Wilmington Star, August 23, 1917).

At the shipyard on Eagles Island the Naul shipbuilders had successfully launched the wooden schooner *Hoppauge* in October 1917 and were proceeding with the construction of a sister ship, the *Commack*. Upon completion of the second schooner at the iron works the Naul workers moved out and concentrated their shipbuilding efforts at their newly acquired property on Point Peter (Wilmington Star, October 15, 1917; Becton, 1918). Work on the vessel was temporarily suspended the following month because of a workers strike.

In November 1917 the ship carpenters closed the yards as a result of a strike. Their demands for "a wage scale of 50 cents an hour, with an eight-hour working day, and time and a half for overtime, with double pay for Sundays and legal holidays" caused great concern that the Naul yards would be forced to go out of business (Wilmington Star, November 6, 1917, February 2, 1919). A. P. Naul agreed to the workers' demands and ended the strike after three weeks, but the fear was soon to come true (Wilmington Dispatch, November 20, 1917).

A. P. Naul sold his interest in the Eagles Island shipyard in late April 1918 to Henry Rowland of New York in what was termed an expansion move. Naul returned to New York, and the shipyard became idle for several months. At the time, two new four-masted schooners under construction, as well as the final fitting on the *Commack*, were on the shipyard ways (Wilmington Star, May 3, 1918; Wilmington Dispatch, May 3, 1918). At the other Naul shipyard, where the intention was to build sailing ships and barges, no vessels were ever completed (Wilmington Dispatch, October 13, 1920). In June 1918 R. Lawrence Smith, Inc., of New York took over the Naul shipyard below Smith Creek. The new owners, the Suffolk Shipbuilding Company, were immediately contracted for the construction of two schooners. The first keel was laid that same month for a vessel 193 feet long equipped with auxiliary engines (Wilmington Dispatch, June 14, 1919).

In November 1918 the Warcrete Shipbuilding company, builders of concrete vessels, announced that it had leased the Suffolk shipyard near Hilton north of Wilmington in expectation of a contract to build concrete river steamers and barges. Warcrete Shipbuilding failed to win the contract and allowed its lease to expire, never constructing any vessels (Wilmington Star, January 16, 1919).

The shipbuilding activities of the Suffolk company are scarce until October 1920, when the R. R. Stone Towing Company purchased the Suffolk (formerly Naul) shipyard on the Northeast Cape Fear River (Wilmington Dispatch, October 22, 1920). Stone indicated that the purchase included all buildings, material, and uncompleted construction at the yard. The property included one completed launchway upon which rested a partly completed schooner, another launchway partly completed, a mold loft, a woodworking shop, a machine shop, office buildings, and several thousand feet of lumber. The shipyard area covered an area of 5¾ acres with a river frontage of 550 feet, as well as frontage on Smith Creek across the river. The partially completed 2,100-ton schooner acquired with the properties would be finished by the new company. Stone intended building a 2,000-ton marine railway to be utilized in the repair of vessels at the yard (Wilmington Dispatch, October 13, 22, 1920).

Stone announced that work would begin immediately at the yard upon a large river barge said to cost approximately $10,000. The barge, to be used by the Stone Towing Company, would measure 110 feet in length, with a 28 foot beam. The partially completed three-masted, 2,100-ton schooner left unfinished on the stocks by the Suffolk company, included in the purchase, was intended to be completed (Wilmington Dispatch, October 22, 1920). In May 1921 the Stone company sold the old Naul shipyard to the Atlantic Refinery Company of Baltimore. Plans were made for the construction of a huge crude oil refining plant on the site of the old shipyard below Smith Creek (Wilmington Dispatch, May 12, 1921; Wilmington Star, October 22, 1923, January 28, 1924; USACOE 1922).

Cape Fear Shipbuilding Company (1917)

In September 1912 A. B. Skelding and Thomas W. Pritchard purchased a tract of land on Point Peter from the Wilmington Savings & Trust Company. The Point Peter tract, located across from Red Cross Street, contained about six acres in the shape of a rough triangle, surrounded on three sides by deep water. It was considered a prime location for a shipyard. Three years later Skelding purchased Pritchard's half of the property (Wilmington Star, September 5, 1912; Wilmington Dispatch, August 28, 1915).

During the summer of 1917 the local inhabitants of Wilmington expressed a growing interest in the establishment of a shipbuilding plant at Point Peter and encouraged the government to open a yard there to construct vessels needed for the war effort. While final decisions were kept secret, it was assumed that Skelding, the property owner, had agreed upon a five-year lease of the Point Peter property to a newly formed shipbuilding interest (Wilmington Dispatch, July 17, August 15, 1917). On August 29, 1917, the state issued a charter to the Cape Fear Shipbuilding Company. It is unlikely that a shipyard at Point Peter was ever constructed, mainly as Wilmington was maintaining three other shipyards that produced wooden, steel, and concrete vessels during that period. The Cape Fear Shipbuilding Company may never have built any ships at Wilmington, although a vessel may have been construction at the old Naul shipyard at Point Peter (Wilmington Dispatch, August 30, 1917; Wilmington Star, November 3, 1917).

Cushman-McKown Company Shipyard (1917 - 1918)
Wilmington Wooden Shipbuilding Company (1918 -1919)
On the last day of June 1917, 225 feet of property located adjacent to the Chadbourn Lumber company on the riverfront at the foot of Wooster Street was leased from the lumber company to Capt. J. F. Cushman and Capt. George W. McKown, of Philadelphia. The two gentlement proposed to begin operation of a shipyard (Wilmington Dispatch, July 1, 1917; Becton 1918). Initially only a single wooden ship, of approximately 1,500 tons, was constructed at the site, but others that followed were built in pairs on adjacent ways (Wilmington Dispatch, July 2, 9, 1917). The shipbuilding ways had been completed by July 29 in preparation for the arrival of the first keel (Wilmington Dispatch, July 29, 1917).

By late spring of the following year, the Cushman and McKown Shipyard had become the Wilmington Wooden Shipbuilding Company. Cushman and McKown had at that time several coastal schooners under construction and requested the lease of the Queen Street docks from the city for more space. In addition to the schooners and barges being built, the shipbuilders had contracted for the transformation of the ocean barge *Alfred Soper* into a three-masted schooner (Wilmington Dispatch, April 12, 1918; Wilmington Star, May 2, 1918).

The vessel best noted as having been constructed by the Captains Cushman and McKown was the schooner *Isabelle C. Harriss*. The keel to that vessel was laid in late September 1917 and it was ready to be launched by June 1918. The 1,750-ton *Isabelle C. Harriss* was "double decked, four-masted and 200 feet overall, with a 40-foot beam and a depth of 19½ feet. She is constructed of North Carolina yellow pine, more than 600,000 feet of timber going into her construction" (Wilmington Dispatch, May 29, 1918). The *Harriss*, what Capt. George McKown called a "strictly hand-made schooner," slipped from its ways into the river on June 25, 1918 (Wilmington Star, June 26, 1918).

After the *Harriss* was launched, plans were made by the company to remove an office building and lay another way. The shipbuilders soon laid the keels for four new boats (Wilmington Star, June 6, 1918). With the end of the World War, the need for vessels declined and production at the shipyard slowed to a halt. A half-million feet of timber earmarked for use in the construction of four 1,800-ton schooners and six 2,100-ton barges was offered for sale (Wilmington Star, January 1, 1919; Wilmington Dispatch, April 1, 1919). On March 1, 1919, the Wilmington Wooden Shipbuilding Company announced that it would close. Newspapers reported that after a brief but productive lifespan, the yard had "sung its swan song" (Wilmington Dispatch, March 2, 1919).

Carolina Shipbuilding Company (1917 - 1921)
The George A. Fuller Company of New York, builders of steel skyscrapers, approached the U.S. Shipping Board in the summer of 1917 about the possibility of building

fabricated steel ships. With the approval of the board, Wilmington was chosen as the shipbuilding site. The shipbuilding plant was to be located in the vicinity of Sunset Park, south of the city. The original site in Charleston, South Carolina, proved unsuitable because of because of a lack of adequate housing and rail connections. The Fuller company formed a subsidiary company, the Carolina Shipbuilding Company, which signed a contract on April 17 for the construction of twelve 9,600-ton steel cargo vessels. Company president Lorenzo C. Dilks appointed Ralph Starrett general manager of the Carolina Steamship Company; Starrett was to have charge of the construction of the vessels under government direction. The Shipping Board built and operated the yard. Four shipways, a fabricating ship, a mold loft, and various other buildings were erected on the 100-acre site (Still, 1981:194-195; Wilmington Dispatch, April 17, 18, 1918; Wilmington Star, April 19, May 30, 1918).

Construction workers laid the foundation for the first way at the Carolina Shipbuilding yard on May 29, 1918 and the machinery arrived at the plant the following month (Wilmington Dispatch, May 30; June 19, 1918). On November 2, 1918, shipbuilders at the Carolina yard put in place the first steamer keel, and within the following two weeks had laid the remaining three keels. Production plans called for ocean-going steamers of 9,800-tons to be built on each way. Upon completion of the other ways, workers put in place the keels for three more steamers. A hotel built at the Carolina yard that opened in January 1919 prevented a housing shortage for the growing number of shipworkers (Wilmington Dispatch, October 29, 31, November 2, 9, 13, 1918).

The first of the twelve steel ships to be readied for launch was the *Cranford*, named for Cranford, New Jersey, home of Mr. and Mrs. Dilks before moving to Wilmington. The steel-ribbed freighter, the first of its kind to be launched in Wilmington, left the shipway at the Carolina yard on Labor Day, September 1, 1919 (Wilmington Star, August 15, September 1, 1919; Wilmington Dispatch, September 2, 1919).

Work continued on preparation for the launching of the second ship, the *City of Omaha*, named in honor of the native city of John W. Towle, who served as the resident representative of the Emergency Fleet Corporation during the construction of the Carolina plant. The third ship was to be named the *Pembroke*, for the late Pembroke Jones, director of the corporation (Wilmington Dispatch, June 5, 1919). A move by the Shipping Board to change the name of the *Pembroke* to the *City of Joliet* met with much opposition by the corporation and local citizens. In the end the Shipping Board won out, and the ship became known as *The City of Joliet*. The Shipping Board maintained its policy that no vessel could be named for any individual, living or dead. The fourth vessel was yet unnamed (Wilmington Dispatch, August 15, 20, 1919; Wilmington Sun, August 15, 1919).

Days after the launching of the *Cranford*, the keel for the fifth steel vessel was put in place on that shipway (Wilmington Dispatch, September 10, 1919). In protest of alleged discrimination against white men employed at the yard, white boilermakers and shipbuilders at the Carolina plant walked out on strike on September 20, 1919. Five days later management appeased the grievances of the workers and work resumed on the steel freighters (Wilmington Star, September 21, 25, 1919).

At midnight on December 31, 1919, the Carolina shipyard became the property of the George A. Fuller Company. The emergency fleet transfered the deed to the land and equipment of the Carolina shipyard for $500,000. By the first day of 1920, the steamers *City of Omaha* and *City of Winston-Salem* had also been launched at the Carolina shipyard. Under the new arrangement, the Fuller company would build only eight of the twelve steel ships for the government. The Fuller company would construct the additional four steel vessels for sale (Wilmington Star, January 7, 1920; Wilmington Dispatch, January 8, 15, 1920).

The fourth steel ship launched was the *City of Joliet*, whose name change caused such a local stir. On January 29, 1920, the new freighter slipped from the Carolina shipyard into the Cape Fear River. Similar to the three sister ships that preceded it from the shipways, the *City of Joliet* was 395 in length, 45 feet in width, and had a depth of hold of 31 feet. The ship was a 9,600-ton capacity oceangoing freighter. The owners of the shipyard announced in late January that they would also conduct repair work at the yard. The first repair job done at the yard was on the steam tug *Grayling* (Wilmington Dispatch, January 22, 1920). The fifth steel vessel under construction at the yard was named the *Nemaha*, after a county in Nebraska. In late May or early June 1920 the *Nemaha* was launched from the Carolina yards (Wilmington Dispatch, January 30, February 11, June 15, 1920; Wilmington Star, January 30, 1920).

On June 19, 1920, the *City of Fort Worth* became the sixth steel ship to be launched at the yard. A bronze propeller to be placed on the freighter had not arrived, so the ship was launched without one. When the bronze propeller arrived, the *City of Fort Worth* was ballasted by the bow, allowing the stern of the ship to rise from the water for placement of the propeller (Wilmington Star, June 20, 1920; Wilmington Dispatch, May 29, 1920). In July 1920 the Carolina Shipbuilding Company was awarded a contract to construct two steel oil tankers for the Eagle Oil Company, Ltd., of London, England, following completion of the last of the eight steel freighters. In preparation for building the tankers, the ways were extended (Wilmington Dispatch, July 11, 1920; Wilmington Star, November 8, 1920).

The large 9,600-ton steel freighter *Hybert*, the seventh ship to be constructed at the Carolina shipyard, entered the waters of the Cape Fear River on July 24, 1920. The keels for the two tankers, originally laid for freighters, were in place by the end of July (Wilmington Dispatch, July 25, 1920). In the wake of several government shipyard closings in the months that followed the war, the Carolina Shipbuilding Company yard was spared temporarily. In addition to the plans for the shipyard to finish the two tankers under construction, the company was to obtain contracts to conduct repair work. The possibility also existed that the company would construct steel railway cars (Wilmington Dispatch, August 25, 1920).

The steamer *Syros*, the eighth and last of the steel freighters to be built at the Carolina Shipbuilding yard, followed its sister ships into the Cape Fear River on September 18, 1920 (Wilmington Star, September 18, 19, 1920). With the completion of the eight steel freighter, work continued at a rapid pace on the two tankers. In order to accommodate the future launching of the tankers, work began in November on deepening the slips at the yard. "The machinery of a tanker is most aft and consequently when it goes into the water light the bow rides while the stern sinks, thus necessitating deeper water for a tanker light than for the same tonnage freight carrying vessel" (Wilmington Dispatch, November 29, 1920).

The first of the steel tankers to be ready for launch was the *San Lamberto*. The 9,200-ton tanker, built in record time, slipped from the way with her boilers fired and steam up on January 29, 1921. The second tanker, the *San Leon*, launched from the Carolina yard on March 12, 1921, marked the end of the shipbuilding efforts. As a result of the company's being unable to obtain any contracts for repair work or the construction of steel railway cars, the yard was forced to close. With no hopes of resuming shipbuilding at the yard, the Fuller Corporation put the shipyard of its subsidiary, the Carolina Shipbuilding Company, up for sale. In July 1921 the Carolina shipyard was sold to the Maryland Wrecking Company. The new owners attempted to obtain from the Mexican government a contract for the construction of two steel oil tankers. Unsuccessful in its attempt, the Maryland Wrecking Company offered all the land, material, and equipment of the shipyard for sale in October (Wilmington Dispatch, November 25, 1920, January 28, March 13, May 15, September 23, October 23, 1921).

The Wilmington Industrial Railway, chartered in February 1922, planned for the construction of a new rail line that would connect the old Carolina shipyard and the plant of the Newport Shipbuilding Corporation with the city. This move was to assure the early establishment of an oil distributing station by the Texas Oil Company at the Carolina yard. In October 1922, however, the former president of the now defunct Maryland Wrecking Company repurchased the partially dismantled Carolina yard. In March 1923 the Texas Oil Company had nearly finalized plans for the conversion of the old shipyard into an oil distribution station. The Texaco plant was operating at the site at the beginning of World War II (Wilmington Dispatch, February 9, October 25, 1922; March 10, 1923).

Liberty Shipbuilding Company (1918 - 1920)

At the same time the Carolina Shipbuilding Company was building fabricated steel ships for the World War I effort, the Liberty Shipbuilding Company began building concrete vessels at the foot of Greenfield and Willard Streets. In early February 1918 the U.S. government notified the Wilmington Chamber of Commerce that Wilmington was being considered as a possible location site for the construction of concrete vessels. The efforts of the Wilmington Chamber of Commerce proved successful. In late March 1918 the Fougner Concrete Shipbuilding Company of New York was proceeding with plans to open a concrete shipbuilding plant on the Cape Fear River.

Although, that initial effort to bring the Fougner concrete shipbuilding firm to the city eventually failed, Wilmington was established as a prime concrete shipbuilding location. In April 1918 the U.S. Shipping Board selected Wilmington as one of the sites for a government yard. The government planned for seven concrete ships to be built at the city, with three of these ships being 3,500 tons and four being 7,500 tons. The larger of the vessels would be used as tankers with a capacity of 50,000 barrels of oil. Each of the tankers would have 2,800-horsepower engines. The smaller, 3,500-ton vessels, would be cargo ships (Wilmington Dispatch, February 10, March 28, April 6, June 6, 1918; Wilmington Star, April 6, 1918).

C. N. Wylie, district engineer for the Portland Cement Association, stated that "Wilmington was the best location along the entire Southeastern seaboard for the construction of vessels of this type. . ." (Wilmington Dispatch, April 12, 1918). The Emergency Fleet Corporation in April 1918 selected the Liberty Shipbuilding Company as its agent for the construction of concrete ships at Wilmington. The site chosen for the construction of the vessels was located near the foot of Meares Street, in the southern section of the city. Heirs of the late John R. Hanby offered 40 acres of land for the shipyard. The site included 2,000 feet of waterfront in Sunset Park, a portion of the Kidder mill property, and land owned by M. S. Willard (Wilmington Dispatch, April 25, 1918; Wilmington Star, April 25, 1918).

Work on driving the shipway piles at the Liberty Shipyard began almost immediately in preparation for the building of the first concrete vessel. The Diamond and Steamboat Wrecking Company received a governement contract for placement of the piles. Dredging of the river at the concrete shipyard began on May 17, 1918 (Wilmington Dispatch, April 28, 1918, May 5, 1918; Wilmington Star, May 18, 1918). The shipping board expected the Wilmington concrete shipyard to be completed during the first week of June 1918. Keels were to be laid immediately for two concrete ships of 7,500 tons, with completion and launch for trans-Atlantic service expected by October (Wilmington Dispatch, May 7, 1918). The mould loft, a building 90 by 300 feet, was begun at the yard on May 9, 1918 (Wilmington Dispatch, May 9, 18, 1918). Toward the later part of the month steam shovels began leveling the shipyard site and filling in low places with sand excavated from the riverfront. On May 31, 1918, work began on construction of the first of four concrete ways and the dredging was completed. Several carloads of machinery were installed (Wilmington Dispatch, May 28, 1918; Wilmington Star, May 31, 1918). One change in the plans for the types of ships to be constructed at the shipyard occurred in late 1918. The Liberty Shipyard would not build six of the larger 7,500-ton tankers, but rather only two of 3,500-ton cargo vessels of concrete. The signing of the Armistice and cessation of World War I activities made the additional vessels unnecessary (Wilmington Dispatch, November 22, 1918).

The Liberty Shipyard at the foot of Greenfield Street was nearly complete by late January 1919 (Wilmington Star, January 25, 1919). Pouring of the first concrete vessel, then to be called the *Rockmart*, began on January 28, 1919. The new type of vessel, a "stone ship," required approximately 300 tons of concrete and was poured in three sections-the bottom, sides and decks. Drying of each section had to occur before the next section could be poured. When all three sections were complete, the vessel had to "set" for a month before launching (Wilmington Dispatch, January 27, 28, 1919; Wilmington Star, January 29, 1919). Pouring on the second concrete cargo vessel began on March 3, 1919, and was completed on May 3 (Wilmington Dispatch, March 3, May 4, 1919).

In June 1919 at the request of the Wilmington Chamber of Commerce, the name of the first concrete vessel built at the yard was changed from the *Rockmart* to the *Cape Fear* (Wilmington Dispatch, June 15, 1919). All preparations were completed for the launch of the vessel in July, and on July 31, 1919, the hull of the *Cape Fear* slipped sideways into the Cape Fear River. The hull, painted gray with the words "Cape Fear" painted across the bow, was the first concrete ship to be launched in North Carolina and the third in the United States (Wilmington Star, July 20, August 1, 1919). Its length was 266 ½ feet, its breadth of beam 46 feet, and the depth of its hold was 24 feet. The new vessel was still not finished. The *Cape Fear*, and later its sister ship on the ways, would be towed to Jacksonville, Florida, where the engines and boilers were installed. The *Cape Fear* was furnished with a 1,100-horsepower engine supplied with steam from coal-burning boilers. It was capable of making 11 knots per hour (Wilmington Dispatch, February 20, 1919; Wilmington Star, August 1, 18, 1919).

The second concrete freighter still on the ways at the Liberty shipyard would tentatively be launched on October 11, 1919. No name had yet been determined for the second ship. Originally the shipping board determined that the concreter would be called the *Corrine*, but the name did not appeal to either the builders or the city residents, who all wanted the vessel to also bear a local name. The chamber of commerce suggested that the name "Wilmington" be used, but since three other ships already bore that name the Shipping Board refused the suggestion. In its place a a committee submitted a list of possible names. The Shipping Board, owners, and committee selected the name *The Old North State* for the ship (Wilmington Star, September 15, 25, 30, 1919).

When the second concrete vessel was finally launched and turned over to the Shipping Board, the Liberty Shipbuilding Company had fulfilled its contract. As a result of the end of the war, and with no further contracts in sight, the Liberty yard was forced to close in late October 1919 (Wilmington Star, November 4, 1919). The emergency fleet offered the 42-acre shipyard with 1,600 feet of river frontage for sale the following year. In June 1920 the city of Wilmington expressed an interest in purchasing the Liberty shipyard in order to build public docks (Wilmington Star, March 10, June 8, 1920). Two months later the city acquired the old Liberty shipyard for conversion into municipal terminals. The local citizens thought that when Wilmington purchased the yard it would also benefit from dredging of the river channel needed to accommodate the terminals. In late August 1920 the city council accepted the deal made by the Wilmington Chamber of Commerce to purchase the Liberty shipyard from the government for $37,500. On September 11, 1920, the city concluded the deal with the U.S. government; it filed the deed and took possession of most of the property. Only Tract No. 5, the land originally owned by L. L. Hanby and loaned to the city, was returned by quitclaim deed. Only a small portion of the water frontage had deep water (Wilmington Dispatch, August 25, 29, September 14, 21, 1920).

The U.S. government gave Wilmington ten years to erect public terminals on the shipyard property. In order to comply with that requirement, the city chose to lease the shipyard. In late September 1920 the city entered into a lease with the Newport Shipbuilding Corporation for the shipyard property (Wilmington Dispatch, September 17, 21, 1920; Wilmington Star, September 26, 1920). Under the terms of the lease the following would occur:

> The city has agreed to sell for $12,500 a portion of the property lying south of Way No. 4, which is believed to be unnecessary for use in the establishment of municipal terminal facilities, to the corporation. The city will lease the yard for a term of five years, with privilege of renewal for one-year periods, and sell the machinery for $25,000, but reserves the ownership of equipment, such as the buildings, tracks, central heating plant and electric light wires and poles. At the end of five years the buildings and equipment come back to the city (Wilmington Star, September 26, 1920).

The Newport Shipbuilding Corporation was to move operations from its plant in New Bern to Wilmington immediately to begin fulfilling the terms of its contract for the War Department for the construction of three concrete tankers and four river steamers. During the period of the lease Wilmington lobbied for appropriations to deepen the river at the terminal facilities. During September 1920 the U.S. Shipping Board offered for sale the two concrete steamers built by the Liberty Shipbuilding Company-the *Cape Fear* and the *Atlantus* (ex-*Old North State*). The Shipping Board was still in possession of the steamer *Cape Fear* a month later when at Narragansett Bay, Rhode Island, the *Cape Fear* collided with another vessel and sank on October 29, 1920 (Wilmington Star, September 26, 1920; Wilmington Dispatch, October 30, 1920).

Newport Shipbuilding Corporation-Wilmington (1920 - 1923)
In less than a month after the Newport Shipbuilding Corporation leased the old Liberty Shipyard, work began on cleaning up the yard and fabricating forms for the tankers commenced (Wilmington Dispatch, October 11, 1920; Wilmington Star, October 15, 1920). Under direction of Kirby Smith, general manager for the Newport Shipbuilding Corporation, simultaneous construction of a tanker and two river steamers began. By mid-November the forms for the first concrete steamer under construction was more than halfway built; work on the first tanker forms began on November 27. Meanwhile, two of the three river steamers built at the New Bern shipyard-the *Col. Frederick G. Hodgson* and the *Gen. M. I. Ludington*-arrived to be fitted out at the Wilmington shipyard (Wilmington Dispatch, November 7, 28, April, 17, 1920).

In late May 1921 six concrete steamers, three of whose hulls had been poured at New Bern, were under construction at the Newport shipyard. The first vessel to be completed, the 600-ton river steamer *Gen. D. H. Rucker* was launched May 23, 1921, from the Wilmington yard. Pouring of concrete for the first 3,500-ton tanker began June 20, 1920 (Wilmington Dispatch, May 20, 23, June 19, 1921). The second of the 150-foot concrete river steamers, the *Gen. George Gibson*, was launched from the ways of the Newport shipyard on July 8, 1921 (Wilmington Dispatch, July 8, 1921).

The 600-ton river steamer *Gen. Morgan Lewis* was the sixth concrete vessel to be launched on August 6, 1921, by the Newport Shipbuilding Corporation and the third steamer constructed at the Wilmington shipyard. The steamer still required installation of the 1,000-horsepower engines before it could undergo trials (Wilmington Dispatch, August 7, 1921; Wilmington Star, August 7, 1921).

While work continued on the first concrete tanker, the last of the four 600-ton river steamers, the *Gen. John Wilkins*, was nearing completion. A few minutes after it was launched from the ways at the Newport yard on August 29, the vessel sank. The hull was raised and towed to the Wilmington Marine Railway for inspection and repair. Concrete oil tanker No. 1, the only tanker of the three being built that was self-propelled, was also damaged when launched in September and required repair work (Wilmington Dispatch, September 11, 1921, June 30, 1922).

The second concrete tanker, when approximately 90 percent complete, was launched from the Newport yard on January 20, 1922. About 1,300 cubic yards of concrete was required for its hull (Wilmington Star, January 21, February 18, 1922). Pouring of the concrete for the last of the tankers began shortly after the launch of the second vessel. On April 14, 1922, the third and last oil concrete oil tanker built for the government at the Newport Shipbuilding Corporation shipyard in Wilmington splashed into the Cape Fear River (Wilmington Dispatch, April 16, 1922).

When the last tanker was turned over to the U.S. government, the Newport shipbuilders had completed their contract requirements of building four concrete steamers and three tankers. The Newport Corporation closed the shipyard and it remained vacant until Wilmington announced in May 1923 plans for converting the old shipyard into state port terminals (Wilmington Sun, May 24, 1923, January 20, 1927). In July the Newport Shipbuilding Company offered for sale all its shipbuilding machinery and tools (Wilmington Dispatch, July 9, 1923). The following month the Newport company relinquished to the city of Wilmington the lease on the old Liberty shipyard (Wilmington Dispatch, August, 23, 24, 1923).

North Carolina failed to develop the old shipyard as a port terminal when Wilmington first offered it in 1923. Two years later, the city commission still had no intention of spending funds to repair the docks or railroad trackage at the old shipyard (Wilmington News Dispatch, October 16, 1925). In March 1926 the Yemassee Lumber Company announced its intention to open a stave factory at the site of the old shipyard. The city commissioners leased the site for the plant to the South Carolina firm (Wilmington News Dispatch, March 5, 1926).

The city commissioners approved a bill in late January 1927 for the construction of docks and wharves to be built at the old shipyard, allowing progress toward development as a state terminal. Apparently the measure was enacted and the improvements added to the shipyard. In May 1930 the local newspaper reported that one of the wharves at the old Liberty shipyard had been destroyed by fire. The city filled the low-lying areas of the shipyard in May 1931. The sand used in the fill was provided by the Atlantic Gulf and Pacific company at no charge from spoil dredged from deepening the Cape Fear river channel to 30 feet. Six acres of the old Liberty shipyard were eventually filled to an average level of 3 feet. The city and Corps of Engineers also bulkheaded the property (Wilmington Sun, January 29, 1927, April 13, 1931; Wilmington News, May 30, 1930, May 7, 22 1931).

The city of Wilmington was unable to meet the original ten-year time limitation imposed by the U.S. government in 1920 to develop the old shipyard as a terminal facility. On July 2, 1930, however, the U.S. government granted to Wilmington an extension to September 10, 1935, the deadline by which the free municipal terminals must be erected. In August 1932 the U.S. Shipping Board agreed to extend indefinitely the time limit during which time the city of Wilmington must erect public piers and terminals at the old Liberty shipyard. While limited steps were taken to reach this goal, a small boatbuilder utilized the basin at the yard, then used as a yacht anchorage, during the late 1920s and 1930s. In 1941 the Taylor-Colquitt Creosote company occupied the site of the old Liberty shipyards. In 1945 the General Assembly created the State Port Authority and four years later provided five million dollars for Wilmington's port. The original port facility opened in 1952 and included only 1,510 feet of wharf, two transit sheds, and one storage shed. Presently, the state port includes a 6,940-foot wharf, five cranes, and numerous sheds and warehouses (Wilmington Star, December 1, 1931, December 10, 1989; Wilmington News, August 31, 1932, June 27, 1934; Wilmington Star-News, September 4, 1988).

Stone Towing Company Marine Railway (ca. 1924 - 1946)

R. R. Stone, of the Stone Towing Company, founded in 1895, announced in late September 1920 plans to construct in Wilmington a marine railway capable of hauling ships up to 2,000 tons, or a length of 250 feet, from the water (Wilmington Dispatch, September 29, 1920). Stone had under consideration two locations for the proposed business. The first site was within the city limits on the east side of the Cape Fear River, and the second, a site on Eagles Island, formerly served as the Wilmington Marine Railway property. Apparently little progress was made in the efforts to build a new marine railway for the city. Several years later, in early February 1924, R. R. Stone purchased the property of the old Wilmington Marine Railway Company on Eagles Island and renamed it the Stone Marine Railway. The existing railway had a capacity of hauling out vessels of 80 to 1,000 tons. Stone also planned to add a smaller railway to handle small vessels, including yachts. Stone Marine Railway appears on a Corps of Engineers 1937 map.

After several years of operation a fire destroyed much of the Stone marine railway and dry docks on June 12, 1946. Mr. Stone said that his storehouse, 175 by 65 feet, and contents were lost in the blaze. Neither the building nor the property was insured. A grass fire between Stone's shop and the dock may have been the cause of the fire (Wilmington Post, June 13, 1946). Ship construction and repair on the Stone Marine Railway may have ended as a result of the 1946 fire, although another U.S. Army Corps of Engineers map shows it three years later. The business evolved into the Stone Towing Company, with R. R. Stone Jr. and his brother, H. B. Stone, operating it from 1940 until 1956. Russell and Robert Stone, grandsons of R. R. Stone, maintained the towing company until it went out of business in 1982 and became the Wilmington Towing Company (Wilmington Star, December 29, 1984).

The remains of the Stone towing yard are still very prominent on Eagles Island. One can see the machine shop with its overhead shaft, the slipway, cradle, and floating dry dock and a number of abandoned tugboats from the Stone fleet. Those tugs include the *Stone 3* (ex-*Isabelle*, 1905), the *Stone 4* (ex-*Eva*, 1915), the *Stone 5* (ex-*Sadie E. Culver*, built 1896), the *Stone 6* (ex-*Atlantic City*, 1890), the *Dolphin* (1896), the *Minnesota* (1910) and the *Cherokee*. Among the wrecks is the *H. G. Wright*, a river steamer that had been pulled up on an old marine railway and used for offices and as a noontime mess hall. The engines and the paddlewheel from the *Wright* have been removed and restored and are now on display at the Cape Fear Museum. A number of abandoned vessels are shown on the USACOE 1937 map.

Herbst Boatyard (ca. 1927 - 1930)

Julius T. Herbst was a well-known designer and pilot of speedboats. In March 1927 the Wilmington board of city commissioners agreed to lease to Frank Herbst and his son Julius one of the buildings at the old Liberty shipyard. Herbst proposed going into the boatbuilding business on a large scale, featuring the production of small speedster type boats. Herbst described his boats as:

> . . . built of Spanish cedar planking on frames of oak and ash. The deck, transom and stem are of mahogany, and brass and copper fastenings are used. The hulls are of the single-step hydroplane type with a forward fin and central steering and throttle control. The steering wheel is mounted on a shaft rising vertically from the bottom of the boat. The bows are sharp with a moderate flare, and the stem is by a rounded forward deck extending to nearly amidships (Wilmington Star, March 12, 1928).

The *Kayo II* produced by Herbst, was regarded by many as his most famous speedboat; it broke the world speed record in 1927. In January 1929 Herbst acquired a lease on a municipally-owned mould loft at the Liberty shipyard. Herbst sold his boatworks, however, in September 1930 at a receivers sale (Wilmington News-Dispatch, March 18, 27, 1927; Wilmington Star, September 17, 1927, January 30, 1929; September 20, 1930).

Intracoastal Barge Lines, Inc. (1935)
During May 1935 the Intracoastal Barge Lines, Inc., of Wilmington launched from the old Liberty shipyard the self-propelled barge *Concord*. Construction of the barge had begun on December 1, 1934. The *Concord* was 75 feet in length and powered with 125-horsepower diesel engine (Wilmington News, May 14, 1935).

North Carolina Shipbuilding Company (1941 - 1946)
Subsidiary of Newport News Shipbuilding and Dry Dock Co.
As early as 1938 local citizens of Wilmington were requesting the aid of their state senators in securing ship construction at local shipyards as a means of furthering economic recovery. With the outbreak of World War II in Europe, the city organised the Shipyard Committee of Wilmington in 1939 or early 1940, with Thomas Wright as chairman. On the recommendation of Adm. Emory S. Land, the U.S. Maritime Commission chose Wilmington as one of the sites for construction of 200 emergency cargo vessels. The Newport News Shipbuilding Company would again be responsible for building ships at Wilmington under a subsidiary now known as the North Carolina Shipbuilding Company (Wilmington News, May 4, 1938; Wilmington Star, January 10,1941; Still n.d.:2)

The Maritime Commission chose Wilmington as the site of the new shipyard based upon past performance, as well as other factors, including a mild climate for shipbuilding, adequate rail links, land, deep water at the yard for launching ships, an inland area protected from possible attack, and an ample labor force. The site chosen for the shipyard was the old Carolina Shipyard property 3 miles south of the city. Approximately 90 acres of the shipyard site was swampland, requiring 650,000 cubic yards of fill to bring the site above sea level. According to the contract with the Maritime Commission, Newport News would establish and operate the shipyard and the Maritime Commission would own the land, equipment, buildings, and constructed vessels. The original contract with the North Carolina Shipbuilding Company was for twenty-five cargo ships to be completed in thirty-seven months. The shipyard eventually constructed 243 vessels (Wilmington Star, January 10, August 27, 1941; Still n.d.:3-4).

Construction of the yard began on February 4, 1941. When the first keel was laid on May 22, 1941, six shipways and three piers, along with several support buildings, had been completed. Three additional shipways were under construction. Housing for the growing number of ship construction workers posed an early problem. To overcome that problem, the company brought in more than two hundred trailers as emergency housing. By the time the first and second keels were in place in late May, the number of ships to be built by the North Carolina Shipbuilding Company had risen to thirty-seven vessels. The cargo ships under construction had a length of 430 feet and a beam of 57 feet. Six days after the first keel was laid, the third keel was in place. Officially designated as the EC-2 type, this type of vessel became well known as the "Liberty Ship." The North Carolina shipyard produced one hundred twenty-six of this class of vessel. By October 1941 the shipbuilding company had laid a keel on all nine ways, but maximum production for each vessel had not yet been achieved (Wilmington Star, April 3, 5, 23, October 2, 1941; Wilmington News, May 22, 29, 1941; Still n.d.:4-5).

The first Liberty Ship to leave the ways of the North Carolina Shipbuilding Company yard was the S.S. *Zebulon B. Vance*, launched on the ominous date of December 6, 1941. The new cargo vessel when launched was only 80 percent complete and still required outfitting (Wilmington Star, December 6, 1941). The *Nathanael Green* was the second ship launched from the yard. On January 17, 1942, it joined its sister ship at the fitting docks. Built at an estimated cost of $1.5 million, the vessel had an overall length of 441 feet, 6 inches, a beam of 57 feet, a draft of 27 feet, and a displacement of 14,100 tons. It was to be staffed with a crew of forty-four officers and men (Wilmington News, December 22, 1941, January 16, 1942). By the end of January the Maritime Commission had awarded the North Carolina Shipbuilding Company a contract for an additional fifty-three Liberty Ships, with most to be delivered by the end of 1943. This amount, combined with the earlier award, brought to ninety the number of ships to be built (Wilmington News, January 26, 1942).

During 1942 the North Carolina Shipbuilding Company yard launched fifty-three ships—a record of one ship per week. The fifty-fourth ship, last to be built in 1942, bore the name *George Davis*. In addition to launching its one hundreth vessel, the *Charles D. McIver*, on May 25, 1943, the company shipyard set a new construction record in May by launching eleven vessels in one month. The Maritime Commission increased the number of Liberty Ships to be built at the shipyard to 126. The last of the Liberty Ships, the *John Branch*, was launched in late August 1943 (Wilmington Star, December 31, 1942, August 20, November 27, 1943; Wilmington News, June 1, 1943).

The Wilmington yard also constructed a second vessel class, the C-2, or "Victory Ship." It was hoped that this type of vessel could be used as merchant ships following the war. The C-2 ships were 460 feet long, 63 feet in beam, and had a dead-weight tonnage of 8,500 tons. The North Carolina Shipbuilding Company produced 117 vessels of the C-2 type (Wilmington Star, April 3, 5, 23, 1941; Wilmington News, May 22, 29, 1941; Still n.d.:4-5). There were many variations in the C-2 design that caused considerable delays when compared to the amount of time it took to build an EC-2-type vessel. Each variation of the C-2-type ships required a different means of propulsion and prevented standardization. The Liberty ship was much easier to produce by comparison (Still n.d.:5).

The shipyard converted to production of the C-2-type vessel during late summer 1943. The original contract called for the delivery of sixty ships of the C-2 type but was increased to a final total of 117. The first of this type to be built at the Wilmington yard was the *Storm King*, whose keel was laid on July 20, 1943. The vessel was launched on September 17. The C-2-class ships were delivered to the Maritime Commission, the U.S. Navy, and private U.S. shipowners. The U.S. Navy converted fifty-three of the C-2s into AKA (combat cargo), AGC (headquarters), AE (ammunition supply), or AP (auxiliary troop transport) vessels. Several of the last C-2 ships built at the North Carolina shipyard were converted to refrigerated cargo ships or passenger ships for the United States Line and the Grace Line. The final ship built at the shipyard was the *Santa Isable*, completed in September 1946. Two months after the hostilities of World War II, ended the U.S. Maritime Commission announced that the North Carolina Shipbuilding Company was selected to be a storage depot for surplus ships of the American merchant fleet. A large floating dry dock capable of accommodating large tankers also added to the North Carolina yard (Wilmington News, June 1, 1943, October 25, 1945, September 17, 1946; Wilmington Post, January 1, February 2, 1945; Wilmington Star-News, February 17, 1946; Still n.d.:5).

Several of the ships built at Wilmington returned to be mothballed within the Brunswick River near the city. The first vessel to be placed in the reserve fleet was the *John B. Boyce* (August 12, 1946). By 1948 251 vessels of different types were moored at the basin. All of the ships were subsequently removed from the basin, with most being dismantled. The last vessel of the Wilmington reserve fleet, the *Dwight W. Morrow* was removed on February 27, 1970 (Wilmington Post, December 17, 1945; Wilmington News, July 1, 1946; Still n.d.:6; Hall 1980:445-447).

During the war, twenty-three of the Liberty ships and one C-2 built at the North Carolina shipyard were lost, but none of those losses were from failure in construction or design. One of the C-2 vessels later played a role in the atomic bomb test at Bikini Atoll in the Pacific. The Navy recalled a very select number of ships for the Vietnam conflict but proved too costly to modernize. The Newport News Shipbuilding Company closed its subsidiary, the North Carolina Shipbuilding plant in Wilmington, in 1946 after five years of wartime operation. Many of the shipways and docks were destroyed following the war to make way for oil storage tanks and the North Carolina State Port Terminal. The Maritime Commission agreed in 1947 to lease part of the yard to the State Port Authority. The mutual parties signed the lease two years later, and by 1952 much of the former shipbuilding yard had become a state-owned and-operated port facility (Still n.d.:9; Wilmington Post, December 17, 1945; Wilmington News, July 1, 1946; Still n.d.:6; Hall 1980:445-447; Wilmington Star, March 6, 1977).

V. P. Loftis Construction Company (1942 - 1943)
Tidewater Construction Company Shipyard (1944 - 1945)
The V. P. Loftis Construction Company of Charlotte, North Carolina, received a contract with the U.S. Navy to built eight concrete floating drydocks at its facility located one-half mile above the Hilton bridge on the Northeast Cape Fear River. The property had been used by the Naul Shipyard during the First World War. In September 1942 the keels for the first two drydocks were laid. Loftis relinquished his contract with the

navy in November 1943 which delayed construction on the drydocks. The Tidewater Construction Company of Norfolk, Virginia, was brought in to complete the work. It succeeded in launching the first two floating drydocks-USS *ARDC-1* and USS *ARDC-2* -on February 16, 1944 (Wilmington Star, April 21, 1944; Still n.d.:7). The company commissioned the third drydock on July 3, 1944. The fourth had been built but not commissioned or launched when the fifth, the USS *ARDC-5,* was launched on August 10, 1944. Each of the 2,800-ton oceangoing drydocks built was 289 feet long and 84 feet wide. The hulls were constructed entirely of reinforced concrete. Each drydock was self contained and provided living quarters for the crew. The last of the concrete drydocks was launched in 1945 (Wilmington Star, August 10, 1944; Still n.d.:9).

Shipwrecks and Derelicts

A historical account and description of thirty-two shipwrecks within the Cape Fear and Northeast Cape Fear Rivers is discussed below. Appendix 1A contains a list of historical accounts of vessels sunk in the lower Cape Fear River. **Figures 29, 30, 31 and 32** illustrate the distribution of shipwrecks along the rivers documented from historical accounts.

- Unknown Vessel
- Yeaman's flyboat
- *Fortuna*
- *Liberty*
- *Fayetteville*
- *Lightship "D"*
- *Kate*
- CSS *North Carolina*
- CSS *Raleigh*
- CSS *Arctic*
- CSS *Yadkin*
- *North Heath*
- *Henrietta*
- *Spray*
- CSS *Caswell*
- CSS *Equator*
- *Cape Fear*
- *Thorn*
- *Planet*
- *J. S. Underhill*
- *Siam*
- *Swiftsure*
- *Wave*
- *Waccamaw*
- *Sylvan Grove*
- *Jacob Brandow*
- *Frances Elizabeth*
- *A. P. Hurt*
- *Belfast*
- *General H. G. Wright*
- *Blanche*
- *Blanchard*

Unknown Vessel (lost 1526)

The first documented vessel known to have been lost on the lower Cape Fear River was an unknown ship that ran aground in 1526 at the mouth of the river. In that year Spaniard Lucas Váquez de Ayllón, a judge on the appeals court at Santo Domingo, presently the capital of the Dominican Republic, outfitted six vessels at Santo Domingo with the intention of establishing a settlement on the North American mainland. The six ships were Ayllón's flagship; a merchant ship named *La Bretona*; another merchant ship, named the *Santa Catalina*; a third merchant vessel, called *La Chorruca*; a brigantine; and a "patax," or lighter (Oviedo:1855:627-633). While attempting to cross the bar into the Cape Fear River (which Ayllón named the "River Jordan"), one of the vessels grounded and was lost. Ayllón's expedition remained in the vicinity long enough to build another ship, possibly the first to be built by Europeans on the North American continent below Canada. The expedition failed in its attempt to establish a permanent settlement in the Cape Fear vicinity (Watson 1992:4; Lee 1971:4; Morison 1971:332-334).

Yeaman's flyboat (lost 1665)

A small flyboat, mistakenly referred to as the *Sir John*, was lost in November of 1665 at the mouth of the Charles (Cape Fear) River. Under an agreement with the Lords Proprietors of Carolina, an expedition of three vessels sailed from Barbados a month earlier with the purpose of establishing a settlement in the vicinity of Port Royal in present-day South Carolina. In command of the expedition was Sir John Yeamans, an associate of Proprietor Sir John Colleton. The Lords Proprietors commissioned Yeamans Lieutenant General and governor of Clarendon County and he chose to establish the settlement in the vicinity of the Cape Fear. An earlier group led by John Vassall, with some two hundred settlers, established a settlement called Charlestown at the confluence of the river and Town Creek (Saunders 1886:119; Potter 1993:6).

The three vessels in Yeamans's convoy consisted of a frigate owned by Sir John Yeamans, a sloop purchased by the colonists, and a flyboat of approximately 150 tons under the personal command of Yeamans. A storm that occurred during the voyage damaged the frigate and scattered the three ships. By early November the vessels had regrouped off the entrance to the Charles River. While at anchor waiting to enter the river with favorable wind and tide conditions, another storm blew up and almost foundered the flyboat with Sir John Yeamans on board. When conditions improved, the trio of ships proceeded to cross the bar into the river. The crew of the flyboat, unfamiliar with the channel, ran the vessel aground on the shoals to the west of the channel. The wind and tide beat the stranded vessel to pieces (Saunders 1886:119-120; Potter 1993:9).

A "Concessions and Agreement" document issued by the Lords Proprietors on January 7, 1664, with William Yeamans gives some indication of the supplies that were on board when the flyboat was lost. The document lists items the Lords Proprietors agreed to furnish the proposed settlement at Port Royal.

> The Lords do further covenant and promise that they will cause to be shipped before the first day of February next, Twelve pieces of Ordinance, with Carriages, Ladles, Sponges, and Shot convenient and Necessary, and Twenty barrels of powder, one hundred Firelocks, and one hundred Matchlocks, with Lead and Bullets fitting, as also two hundred pair of Bandoliers, for the Arming and Providing of a Fort, to be Erected and built near Port Royall, or near some other harbour, River, or creek whose mouth or Entrance is Southward or Westward of Cape Romania, in the Province aforesaid, by the Respective Adventurers before mentioned, or by any others Under their Authority (Parker 1963:110; Potter 1993:7).

The Lords Proprietors shipped the ordinance to Barbados from London in December of 1664 on the *John & Thomas*, a merchant ship jointly owned by Thomas Colleton, son of proprietor John Colleton, and Barbadian merchant John Strode. In a subsequent account of the expedition, Robert Sanford, secretary and registrar of Clarendon County, reported that all of the people aboard the vessel were saved by the nearness to shore but that "the greatest part of their provision and other Military furniture shipped by the Lords Proprietors for the defence of the designed settlement perished in the waters . . ." (Saunders 1886:120; Potter 1993:8).

Secondary accounts often reference the flyboat as the *Sir John*, which may, in fact, be an erroneous assumption. Sanford's report appears to be the only known account that indicates a possible name for the boat. Sanford states: "they were after blowne from

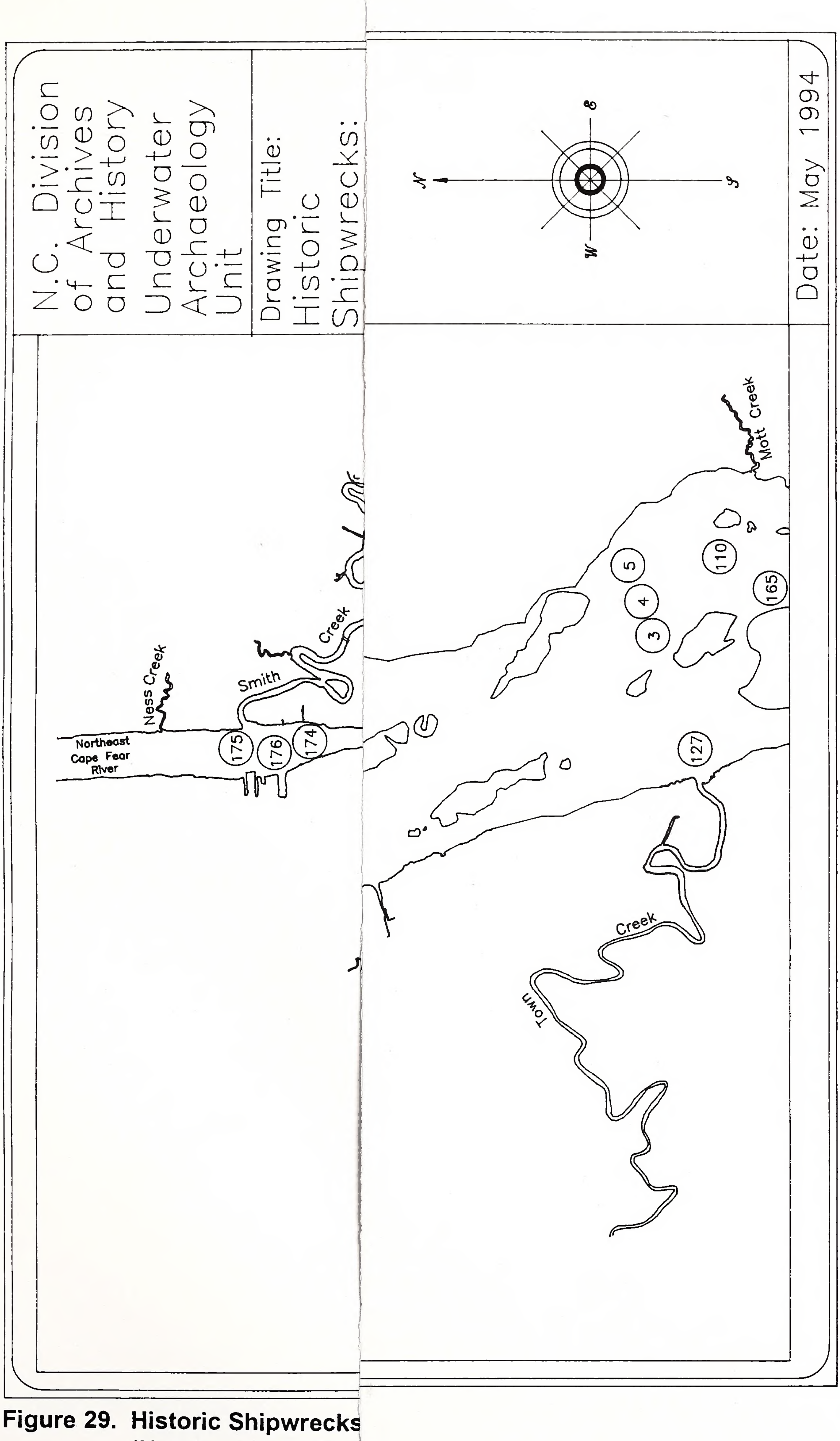
N.C. Division of Archives and History
Underwater Archaeology Unit
Drawing Title: Historic Shipwrecks:
Date: May 1994
N
S
E
W
Mott Creek
5
4
3
110
165
127
Smith Creek
Ness Creek
Northeast Cape Fear River
175
176
174
Town Creek

Figure 29. Historic Shipwrecks
(Numbers in Circles

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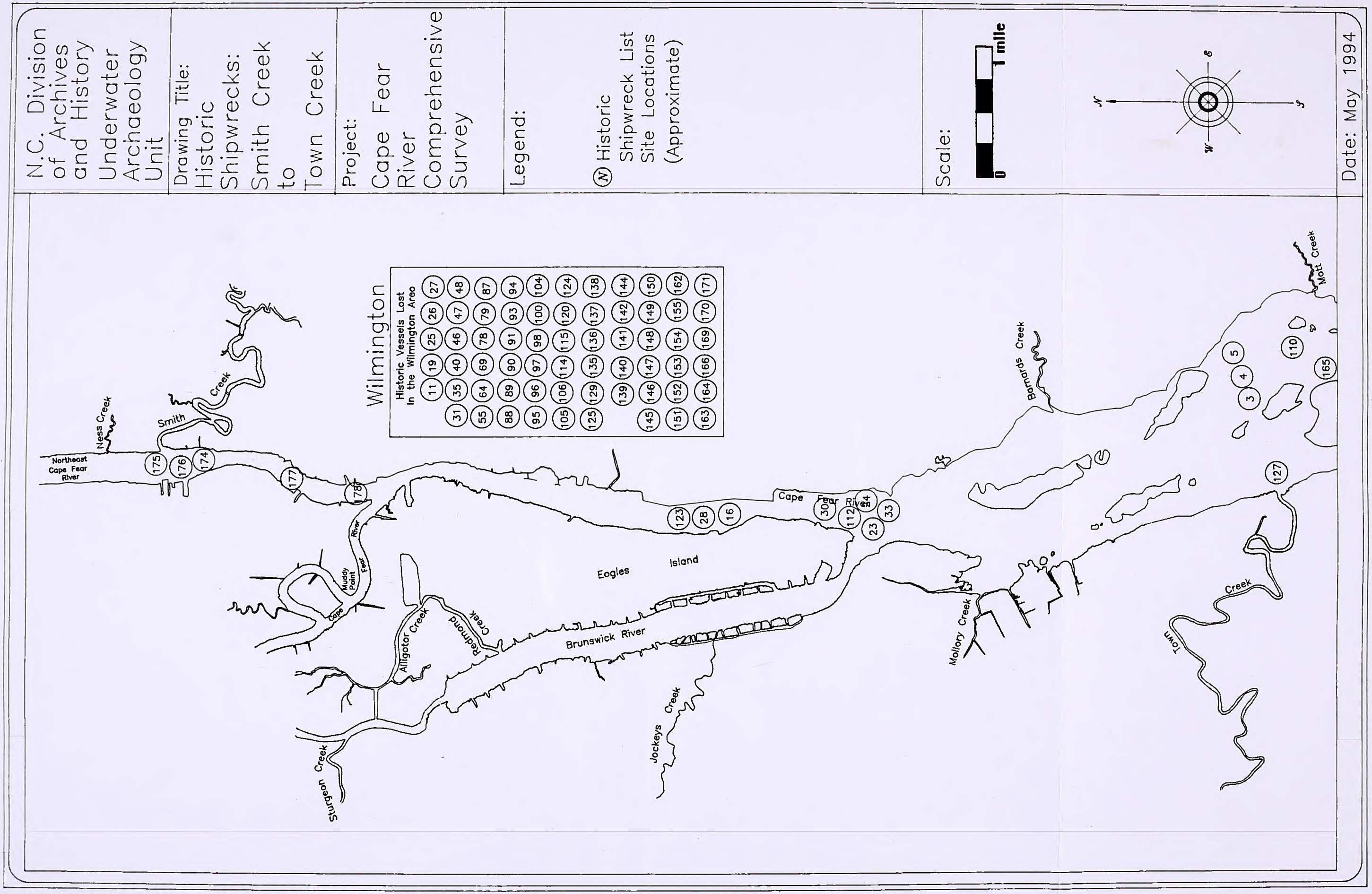

N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title: Historic Shipwrecks: Smith Creek to Town Creek
Project: Cape Fear River Comprehensive Survey
Legend:
Ⓝ Historic Shipwreck List Site Locations (Approximate)
Scale:
0
1 mile
N
S
W
E
Date: May 1994
Wilmington
Historic Vessels Lost In the Wilmington Area
11 19 25 26 27
31 35 40 46 47 48
55 64 69 78 79 87
88 89 90 91 93 94
95 96 97 98 100 104
105 106 114 115 120 124
125 129 135 136 137 138
139 140 141 142 144
145 146 147 148 149 150
151 152 153 154 155 162
163 164 166 169 170 171
Northeast Cape Fear River
Ness Creek
Smith Creek
175
176
174
177
178
Cape Fear River
Muddy Point
Eagles Island
Alligator Creek
Redmond Creek
Brunswick River
Sturgeon Creek
Jockeys Creek
123
28
16
Cape Fear River
30
112
24
23
33
Barnards Creek
Mallory Creek
Town Creek
127
3
4
5
110
165
Mott Creek

Figure 29. Historic Shipwrecks: Smith Creek to Town Creek.
(Numbers in Circles Correspond to Wrecks listed in Appendix 1A).

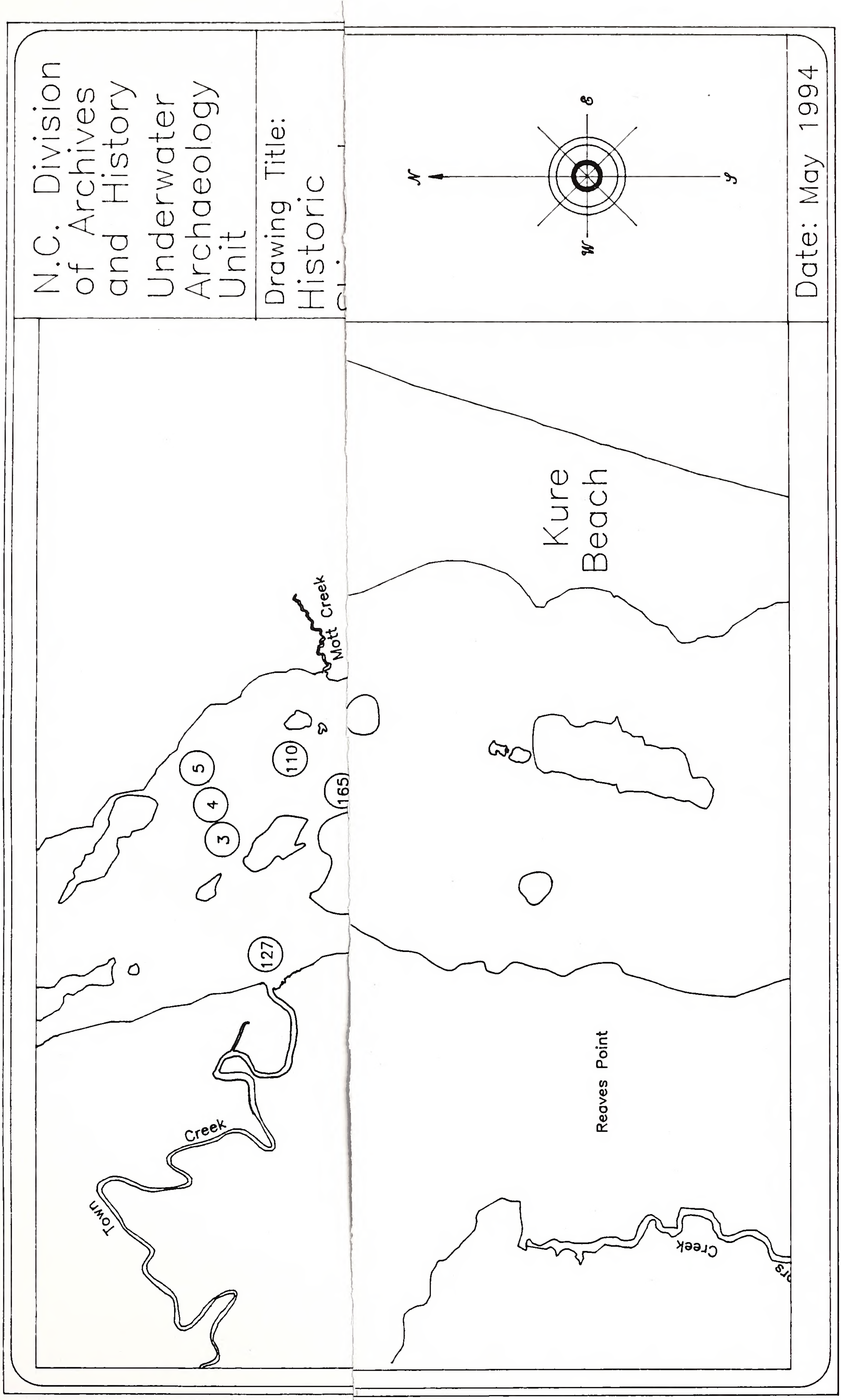

N.C. Division
of Archives
and History
Underwater
Archaeology
Unit
Drawing Title:
Historic
Date: May 1994
N
E
S
W
Kure
Beach
Mott Creek
5
4
3
110
165
127
Town
Creek
Reaves Point
Creek

Figure 30. Historic Shipwreck
(Numbers in Circle

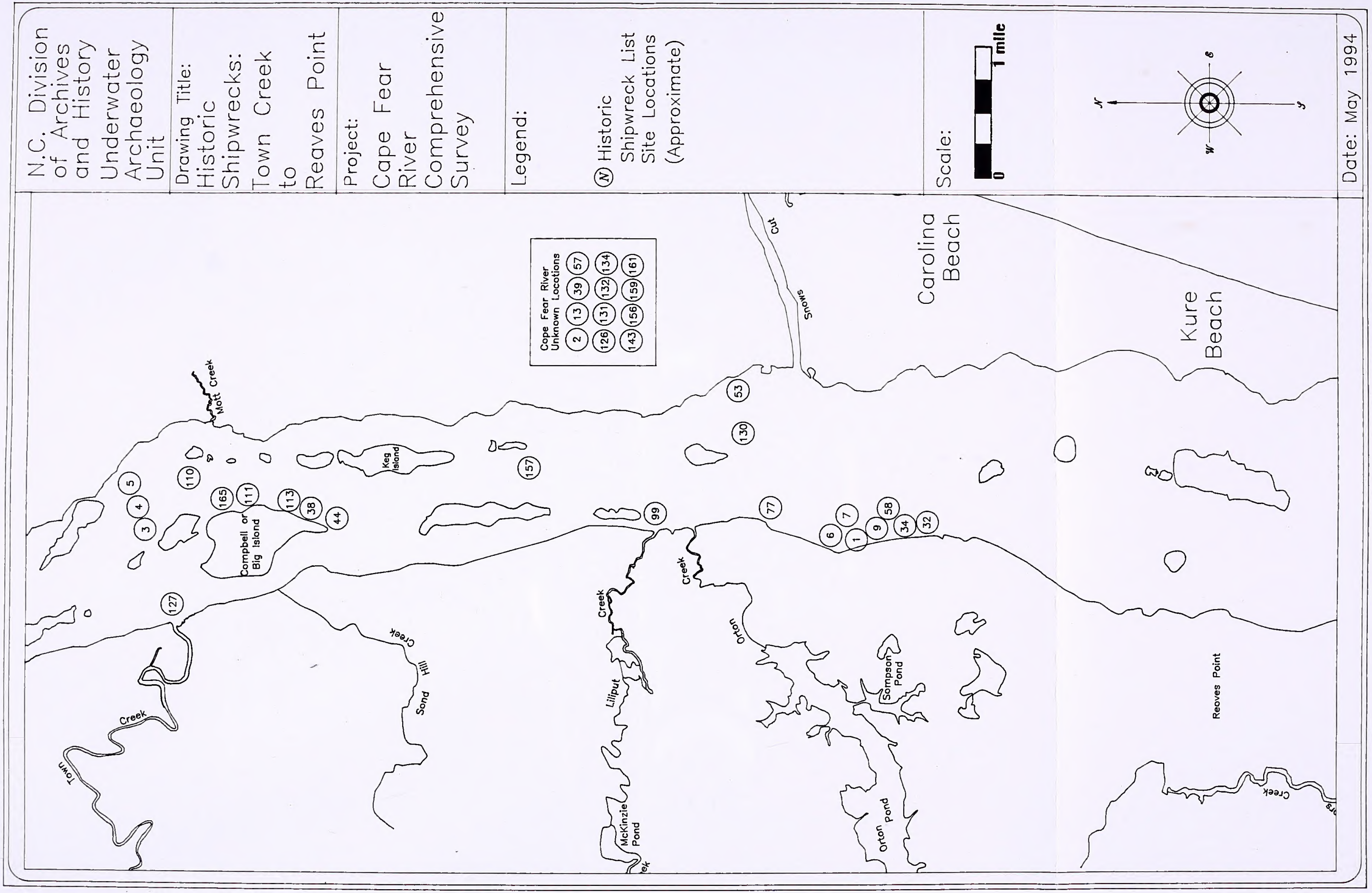

N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title: Historic Shipwrecks: Town Creek to Reaves Point
Project: Cape Fear River Comprehensive Survey
Legend:
Ⓝ Historic Shipwreck List Site Locations (Approximate)
Scale:
0
1 mile
N
S
E
W
Date: May 1994
Cape Fear River Unknown Locations
2 13 39 57
126 131 132 134
143 156 159 161
Carolina Beach
Kure Beach
Snows Cut
Mott Creek
Keg Island
Campbell or Big Island
Town Creek
Sand Hill Creek
Liliput Creek
McKinzie Pond
Orton Creek
Sampson Pond
Orton Pond
Reaves Point
Creek
5 4 3 110 165 111 113 38 44 127 157 99 53 130 77 6 7 1 9 58 34 32

Figure 30. Historic Shipwrecks: Town Creek to Reaves Point.
(Numbers in Circles Correspond to Wrecks listed in Appendix 1A).

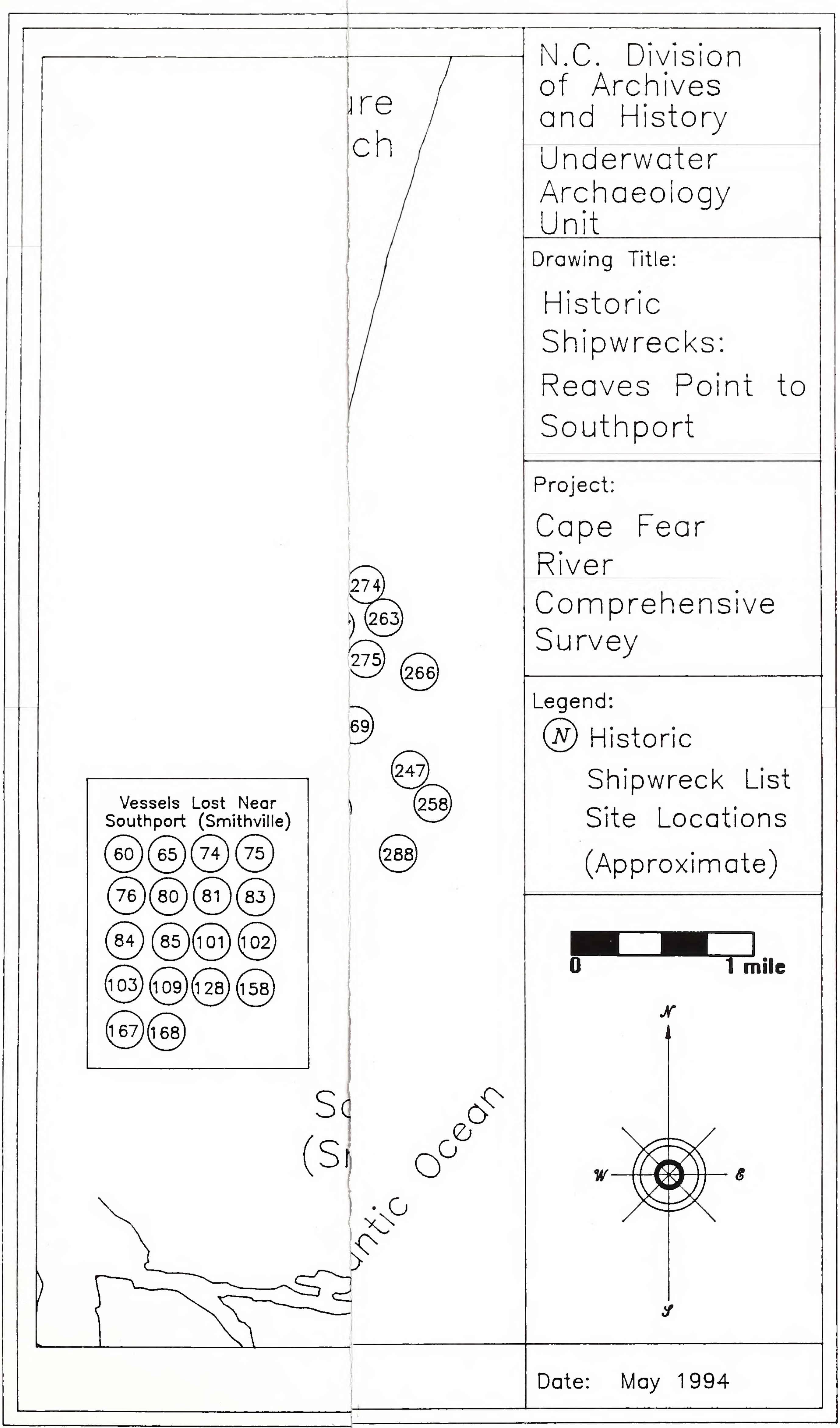

N.C. Division of Archives and History
Underwater Archaeology Unit
Drawing Title:
Historic Shipwrecks: Reaves Point to Southport
Project:
Cape Fear River Comprehensive Survey
Legend:
(N) Historic Shipwreck List Site Locations (Approximate)
0
1 mile
N
W
E
S
Date: May 1994
ıre
ch
274
263
275
266
69
247
258
288
Vessels Lost Near Southport (Smithville)
60 65 74 75
76 80 81 83
84 85 101 102
103 109 128 158
167 168
Sc
(S
ntic Ocean

Figure 31. Historic Shipwrec
(Numbers in Circl

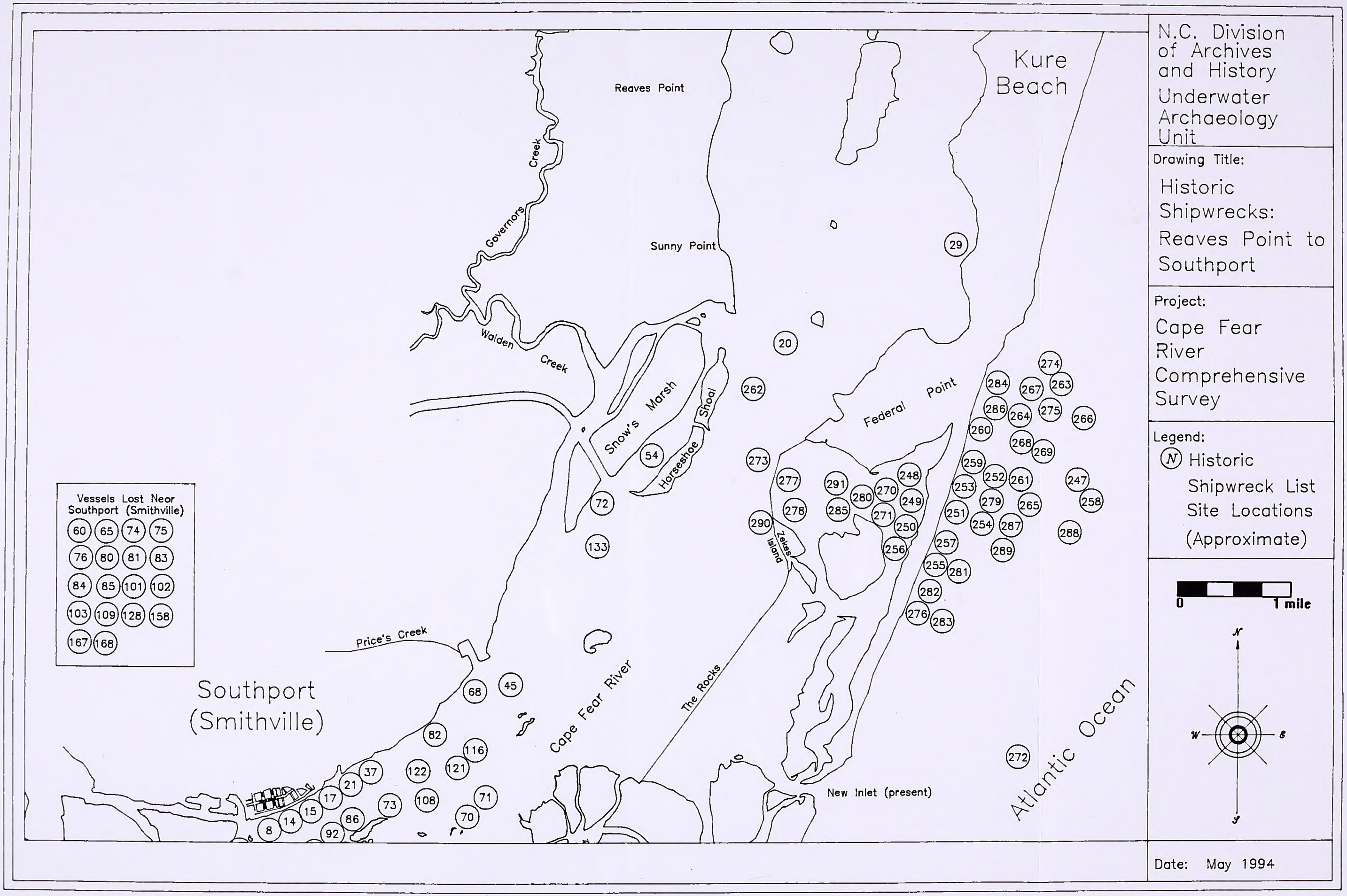
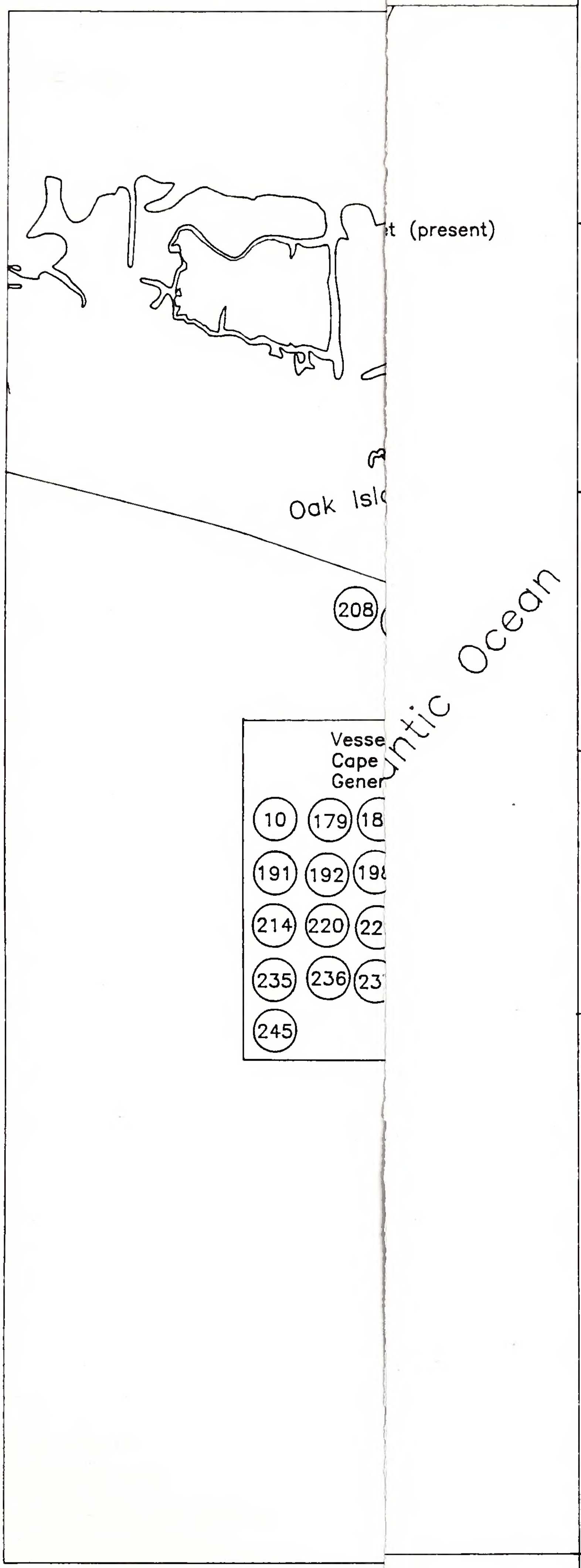

N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title:
Historic Shipwrecks: Reaves Point to Southport
Project:
Cape Fear River Comprehensive Survey
Legend:
(N) Historic Shipwreck List Site Locations (Approximate)
0
1 mile
N
W
E
S
Date: May 1994
Kure Beach
Reaves Point
Sunny Point
Governors Creek
Walden Creek
Snow's Marsh
Horseshoe Shoal
Federal Point
Zekes Island
The Rocks
Cape Fear River
Price's Creek
Southport (Smithville)
New Inlet (present)
Atlantic Ocean
Vessels Lost Near Southport (Smithville)
60 65 74 75
76 80 81 83
84 85 101 102
103 109 128 158
167 168
29
20
262
54
72
133
273
290
277
278
291
285
280
270
271
248
249
250
256
274
284
267
263
286
264
275
266
260
268
269
259
252
261
253
279
265
247
258
251
254
287
288
257
289
255
281
282
276
283
272
45
68
82
116
121
122
37
21
17
15
14
8
92
86
73
108
71
70

Figure 31. Historic Shipwrecks: Reaves Point to Southport.
(Numbers in Circles Correspond to Wrecks listed in Appendix 1A).



t (present)
Oak Isl
Atlantic Ocean
208
Vesse
Cape
Gener
10
179
18
191
192
19
214
220
22
235
236
23
245

N.C. Division
of Archives
and History
Underwater
Archaeology
Unit

Drawing Title:

Historic
Shipwrecks:
Southport to
Cape Fear

Project:

Cape Fear
River
Comprehensive
Survey

Legend:

Ⓝ Historic
Shipwreck List
Site Locations
(Approximate)

0 1 mile

N
W E
S

Date: May 1994

Figure 32. Historic Shipwreck
(Numbers in Circle

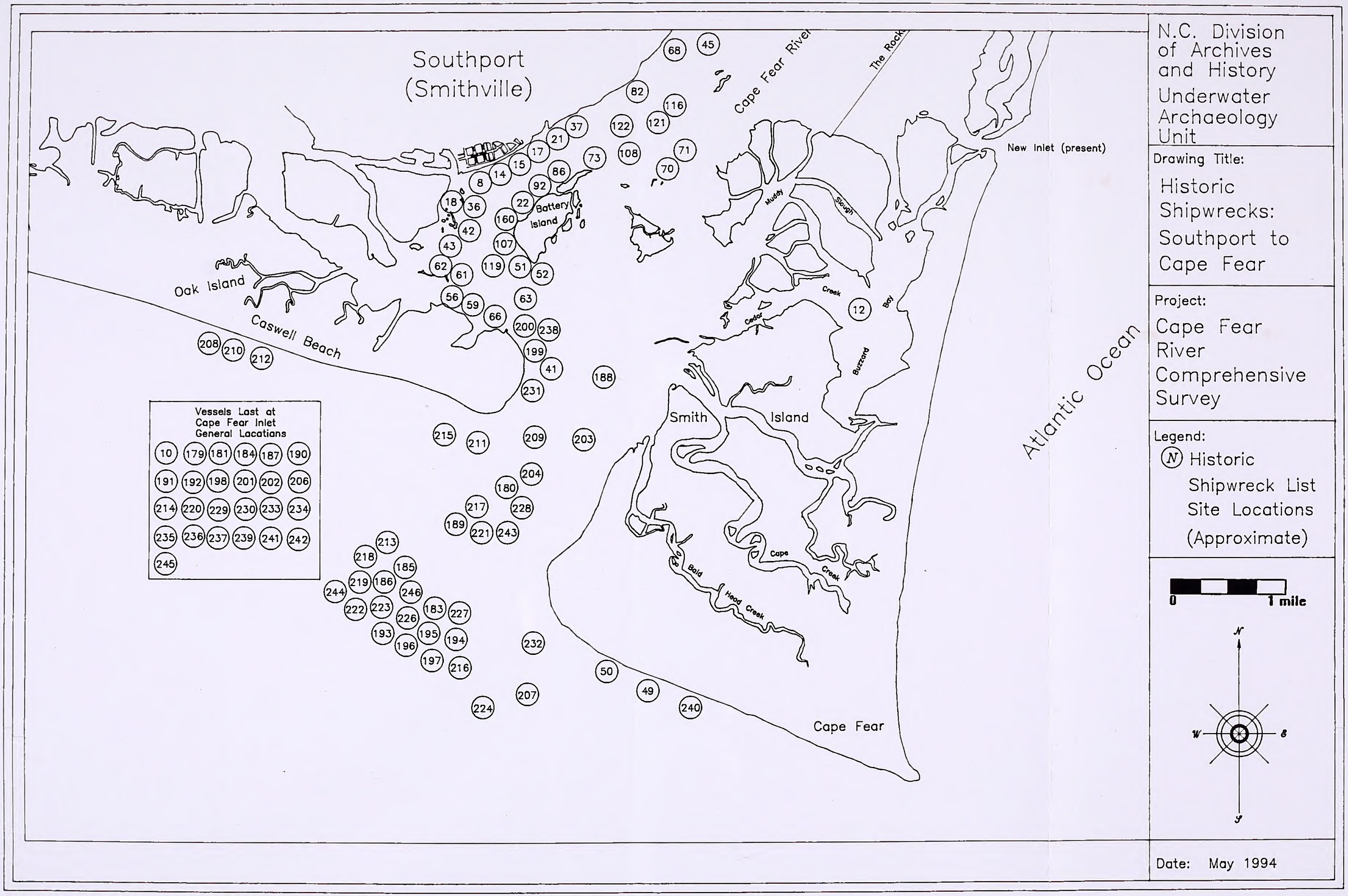

N.C. Division of Archives and History Underwater Archaeology Unit
Drawing Title:
Historic Shipwrecks: Southport to Cape Fear
Project:
Cape Fear River Comprehensive Survey
Legend:
N Historic Shipwreck List Site Locations (Approximate)
0
1 mile
N
W
E
S
Date: May 1994
Southport (Smithville)
Cape Fear River
The Rocks
New Inlet (present)
Battery Island
Oak Island
Caswell Beach
Muddy
Slough
Creek
Cedar
Bay
Buzzard
Smith Island
Atlantic Ocean
Cape Creek
Bald Head Creek
Cape Fear
Vessels Lost at Cape Fear Inlet General Locations
10 179 181 184 187 190
191 192 198 201 202 206
214 220 229 230 233 234
235 236 237 239 241 242
245
68 45 82 116 121 122 37 21 17 73 108 71 70 15 14 86 8 92 18 36 22 160 42 43 107 62 61 119 51 52 56 59 66 63 200 238 199 41 188 231 208 210 212 12 215 211 209 203 204 180 217 228 189 221 243 213 218 185 219 186 244 246 222 223 226 183 227 193 195 194 196 197 216 232 50 49 240 207 224

Figure 32. Historic Shipwrecks: Southport to Cape Fear.
(Numbers in Circles Correspond to Wrecks listed in Appendix 1A).

their Anchors by a suddaine violent Gust, the Fly-boate Sir John was in narrowly escapeing the dangerous shoales of the Cape" (Saunders 1886:119). One researcher maintains that the name of the flyboat is still unknown and that Sanford's account when read with a slight grammatical correction says: "they were after blowne from their Anchors by a suddaine violent Gust, the Fly-boate Sir John was in, narrowly escapeing the dangerous shoales of the Cape" (Potter 1993:16).

Fortuna (lost 1748)
In the early evening of Saturday, September 3, 1748, three sloops arrived at the Cape Fear bar and dropped anchor to wait for local pilots to come aboard and guide them into the river. The pilots arrived at daybreak, only to discover that two of the vessels were Spanish privateers out of Havana. The third vessel was a South Carolina sloop seized as a prize of war. The largest of the privateers, the *Fortuna*, a sloop of 130 tons under the command of Vincent Lopez, was armed with ten 6-pound cannons and fourteen swivel guns. The second sloop, not as large, was the *Loretta*, under Joseph Leon Munos, and carried four 4-pounders, four 6-pounders, and twelve swivels (Charleston (South Carolina) Gazette, October 31, 1748; Lee 1965:232).

The Spaniards entered the Cape Fear, guided by the hostage pilots, with the intention of taking "the negroes that were at work" on Fort Johnston, then under construction. Being a Sunday, "few or none" of the Negroes were to be found at work on the fort, most having been taken to Brunswick Town. Realizing their mistake, the Spaniards forced the pilots to guide them to Brunswick Town. Four miles below the town the Spanish put ashore a large number of men to attack the town by land. The Spanish sloops proceeded "till they anchored before the town and had fired at some boats that retreated on finding their mistake" of approaching the enemy vessels (Charleston (South Carolina) Gazette, October 31, 1748; Lee 1965:232).

The people of Brunswick Town, taken completely by surprise, fled from the combined land and sea attack, leaving their town and several vessels in the harbor to be captured. Among the vessels in the harbor captured by the Spanish were the snow *Litchfield*, the brigantine *Diamond*, a sloop, and "several small craft." The ships *Hannah* and *Nancy* escaped up the river (Charleston (South Carolina) Gazette, October 31, 1748; Lee 1965:232; Green 1992:17).

The inhabitants sent out an alarm for assistance. The town dispatched a messenger to Charlestown "to get the assistance of the king's ships." On Monday, the fifth, William Dry, captain of the local militia and nephew of Roger Moore, founder of Orton plantation, organized "about 25 or 30 men" in an attempt to recapture their town. Most of the men were unable to arm themselves, however, since their guns and ammunition were captured in the attack, delaying any action for a day. In the meantime the Spanish sloop *Loretta* had been ordered upriver in pursuit of the *Nancy*. About 3 miles above Brunswick Town the *Nancy* grounded on the "Flats" and was easily taken by the

Spanish sloop (Charleston (South Carolina) Gazette, October 31, 1748; Lee 1965:232; Green 1992:19).

The following day, September 6, with reenforcements from the countryside, sailors and slaves, and a few more arms, Captain Dry led a counterattack on the Spanish, who were busily looting the town. The defenders killed about ten of the enemy and captured thirty. The remaining force fled to the *Fortuna*, which had "anchored before the town." While the *Fortuna* shelled the town to cover the Spaniards retreat, one of the cannons aboard the vessel ignited a fire. The fire apparently spread to the magazine, for the vessel soon exploded violently. Ninety men, including Captain Lopez and his entire staff of officers, died in the explosion. The wreckage of the *Fortuna* quickly settled to the bottom, with only the superstructure remaining above water (Charleston [South Carolina] Gazette, October 31, 1748; Boston Weekly News-Letter, October 20, 1748; Lee 1965:232-233; Green 1992:19-20).

Shortly after the *Fortuna* blew up, the captured *Nancy*, with twenty men and guns placed aboard her, began firing upon the town. The men aboard the enemy privateer *Loretta*, while upriver attempting to burn the captured *Hannah*, heard the explosion. They abandoned the attempt and sailed to join with the *Nancy* in the bombardment, firing upon Orton as they passed. The mate and some English sailors aboard the snow *Litchfield* overpowered the Spanish prize crew and grounded the vessel to prevent it from being taken out to sea. In retaliation the Spanish plundered the vessel, and then fired upon it with the guns of the sloop *Loretta*. Captain Wakefield of the *Litchfield* later wrote; "Our *Litchfield* is plundered of almost all her Stores, Colours, &c. The Boat was blown up by the Sloop [*Loretta*]: my own wearing Apparel except what I had on, with my stores, Liquors, Furniture, Papers, Books, Instruments, and every Thing that I had except my Bed was carried away" (Boston Weekly News-Letter, October 20, 1748; Lee 1965:232-233; Green 1992:20).

Captain Munos of the *Loretta* called off the bombardment of the town of Brunswick when he realized that the continued destruction of the town was gaining nothing for himself. Munos sent a messenger ashore under a flag of truce agreeing to no further damage if he were allowed to leave with the *Nancy* and the captured South Carolina sloop with which he had entered the river. Dry refused the offer but was in no position to enforce the return of the ships and booty, having no vessel with which to pursue the enemy. The Spanish trio of ships prepared to sail. The following morning reinforcements, under Captain Swann, arrived from Wilmington and pursued the Spanish along the shore. The enemy ships had sailed past the partially completed Fort Johnston and anchored in the river off Bald Head. That evening Munos again sent a message ashore, agreeing to an even exchange of prisoners. Major Swann agreed to an exchange of prisoners on the morning of September 7, as soon as the Spanish prisoners could be brought down from Wilmington, where they had been taken. When the captives had failed to arrive by three o'clock that afternoon, Munos sailed out of the river with his prizes, plunder, and prisoners (Lee 1965:233-234; Green 1992:20).

Although the Brunswick colonists had suffered major damage to their town, the Spanish had paid heavily for their raid. Nearly half of the 260 men of the attacking Spanish force were killed, the invaders had lost the twenty-four-gun sloop *Fortuna*, and most of the plunder from the town went down with the vessel. (The *Fortuna* had sunk in shallow water, and the inhabitants of Brunswick Town were able to salvage a considerable amount from the wreck.) In 1760 the N.C. Assembly enacted a law stating that certain proceeds from the sale of the recovered goods be used to finance the construction of St. Philips Church in Brunswick and St. James Church in Wilmington. It is believed that the painting *Ecce Homo*, which hangs in St. James Church, was removed from the wreck of the *Fortuna*. An account of the reimbursements to individuals for items or services rendered during the attack indicates payment to "Sailors for Afishing to gett the Guns & Anchors &c on Shoar out of the wreck . . ." In 1985 a cannon, probably an eighteenth-century 4-pounder, was recovered from the river off Brunswick. The *Fortuna* was known to carry 6-pounders, so it is questionable whether that cannon came from the wrecked Spanish ship. A swivel gun has also been recovered from a dredge island adjacent to Brunswick Town in the early 1960s (Boston Weekly News-Letter, October 20, 1748; Clark XXIII:535; Sprunt 1992:50; Lee 1965:234; Green 1992:20; Military Collections, N.C. State Archives).

Liberty (lost 1803)
The schooner *Liberty* of Barrington, Rhode Island, under command of Capt. Curtis Ladue, sailed from Wilmington for Washington, North Carolina, on December 24, 1803. Encountering severe weather after leaving Wilmington, the schooner was forced to return where it anchored off Brunswick. All the passengers and crew except Captain Ladue left the vessel to "procure refreshments." Shortly thereafter, the *Liberty* caught fire and was entirely consumed. Captain Ladue escaped, saving only his life (Wilmington Gazette, January 31, 1804).

Fayetteville (lost 1853)
The 264-ton paddle-sidewheel steam tugboat *Fayetteville* was lost inside the main river entrance near Smithville (Southport) on May, 18, 1853. The previous day the tug, commanded by Capt. John Davis, had been outside the bar lightering the brig *Invoice* and had returned loaded about 2:00 A.M. to anchor off Oak Island. About 6:00 A.M. the *Fayetteville* was in the process of getting up steam to bring the brig upriver when one of its boilers exploded, shattering the hull of the boat. The tug, loaded with forty-seven bars of railroad iron that it had lightered from the *Invoice*, sank in about a half-hour. All of the crew except the engineer escaped injury from the blast. Wilmington partners DeRosset & Brown owned the *Fayetteville,* built in 1852, and valued at $20,000 (Johnson 1977:101; Lytle and Holdcamper, 1975:72; Wilmington Daily Journal, May 19, 20, 1853; Wilmington Weekly Commercial, May 21, 1853).

Lightship "*D*" (lost 1861)
Lightship *"D,"* formerly stationed on the Frying Pan Shoals, was removed to the Cape Fear River near Fort Caswell, were Union forces set it afire on the night of December 30-31, 1861. This vessel, a first-order lightship, was equipped with two lights forty feet above the water level. The lightship was used as a beacon to guide blockade-runners and other vessels safely into the river through the Western Cut at the mouth of the Cape Fear River. Federal sailors from the USS *Mount Vernon* rowed a small boat from their vessel to the deserted lightship with the intention of burning it. The sailors discovered that the vessel had been made ready to mount eight guns-six broadside and two after guns for defense of the harbor. The sailors saturated a large quantity of wood lying on the deck with turpentine and set it ablaze. The captain of the *Mount Vernon* stated that they watched as the lightship "burned to the water's edge" and that not a portion of the vessel could be seen above the water (ORN, Series I, 6:492; Flint 1989:n.p.).

Kate (lost 1862)
The blockade-runner *Kate*, a 483-ton, side-wheel steamer, was originally the *Carolina*, built in Greenpoint, New York, in 1852. The vessel's dimensions were 165 feet in length, 29 feet 10 inches in beam, and 10 feet 4 inches in depth. As the *Carolina*, it plied between Charleston, South Carolina, and Palatka, Florida. In late 1861 or early 1862 John Fraser and Company purchased the vessel to be used as a blockade-runner and changed the name to the *Kate*. Under the command of Capt. Thomas J. Lockwood of Smithville and George C. McDougal as chief engineer, the *Kate* attempted to run the Union blockade twenty times from January to November 1862. With a reported speed of nine knots, the *Kate* was successful each time in eluding the blockade.

The *Kate* was responsible for bringing the yellow fever epidemic to Wilmington from the port of Nassau in August 1862. The epidemic which began on August 6 and ended November 17, resulted in the loss of between 450 and 700 lives. The *Kate* sailed back to Nassau, losing two passengers to the fever, only to find that the epidemic was raging in the Bahamaian port. The *Kate* was again threatened on a subsequent trip into Wilmington. On the night of October 8, 1862, three Union boats launched from larger vessels offshore tried to enter the Cape Fear River through New Inlet for the purpose of destroying the *Kate*. Breakers prevented the small boats from entering and landing, and forced the vessel to turn back.

During the same month that the yellow fever epidemic was finally brought under control in Wilmington, the blockade-runner's career was also coming to an end. On November 18, 1862, at Fiddler's Drain, now called Bonnet's Creek, one-half mile above Smithville, the *Kate* ran upon some obstructions in the river and "partially" sank. The cargo was salvaged but the ship was a total loss. The captain of another blockade-runner later wrote of the *Kate*; "her ribs were to be seen for many a day before the war ended, bleaching in the sun on one of the mud flats in Cape Fear River." A young man named

James Randall wrote that the "wreck of the Steamer *Kate*" was "a famous fishing ground" where he used to lash the boat to "one of the sunken paddle wheels" to fish. The *Kate* claimed another victim eight years later when the schooner *Planet*, laden with dry goods, ran upon the wrecked steamer. Wreckage punched a hole in the *Planet*'s hull, causing it to capsize and sink (Wise 1988:126-127,307; Sprunt 1992:287; Watson 1992:86; Reaves 1978:54; Wilkinson 1877:84; Williams-McEachern Civil War File, UNCW; Wilmington Journal, November 22, 1862; Williams and McEachern 1978:4; ORN I, 8:152-155).

CSS *North Carolina* (lost 1864)
The *North Carolina* was one of two Confederate ironclad steamers completed at Wilmington during the Civil War. The Beery's built the vessel at their "Confederate Navy Yard," or the "Navy Yard" on Eagles Island, across from Wilmington. J. L. Cassidey and Sons built the other ironclad, the *Raleigh*, at their shipyard at the foot of Church Street. The *Richmond*-class ironclad, begun in July 1862, remained nameless until October of that year, when S. R. Mallory, secretary of the Confederate States Navy, instructed that the ship be named the *North Carolina*. Built for the Confederate government in accordance with the specifications issued by chief naval constructor John L. Porter, the *North Carolina* was the largest ship built by the Beery brothers. It measured 150 feet in length, 32 feet in beam, had a depth of 14 feet, and only 800 tons' burden (Shomette 1973:333; UAU Site Files; Mallison 1959:9). Nearly all of the wood used in the construction of the ship was fresh cut or "green." The hull was of pine, and the upper works of heavy oak. It was stated that the ironclad steamer had low, broad lines and could not cross the bar but rather was intended for river defense (ORA I, 18:416; ORN I, 8:88; Hall 1980:339).

The *North Carolina* was expected to be completed by October or November 1862, but strikes, shortages, and a yellow-fever epidemic postponed the launching of the vessel for several months. The guns, railroad iron plating, and engines for both ironclads under construction had to be produced at the Confederacy's only iron rolling mill, the Tredegar Iron Works in Richmond. Instead of waiting for the engine to be built for the *North Carolina*, Captain Beery was able to locate an engine from another vessel that could be installed in the ironclad. At the beginning of the war the town of Wilmington seized the tug *Uncle Ben* and removed the engine. Although the engine from the tug proved too small for the larger ironclad, it was better than having to wait for the Tredegar Iron Works to build one, as was the case with the *Raleigh* (ORA I, 18:416; Mallison 1959:9; Shomette 1973:333; Robinson 1990:291).

Nearly complete by the spring of 1863, the *North Carolina* still lacked guns and what would prove a costly omission-lower-hull copper sheathing. There was very little copper to be found in the whole Confederacy in 1863, and the sheathing had to be omitted from the final plans. The specific armament of the *North Carolina* has never been determined. Most *Richmond*-class ironclads were designed to carry two 7-inch and two 6.4-inch Brooke rifles. The guns were arranged so that one gun pointed out of a gunport on the bow and another out of the stern; one gun on each broadside was capable of being pointed from any of three ports. Both the bow and stern guns were on pivots, able to turn to either broadside to fire. That arrangement gave the *Richmond* class a three-gun broadside potential. Although the Wilmington ironclads were meant to carry four guns, they carried only three, primarily to conserve weight. Before the ironclad was finished, the navy loaned to General Whiting at Fort Fisher two Brooke 6.4-inch rifles. When the *North Carolina* was ready to be launched, General Whiting returned the guns. The third gun was probably a 7-inch Brooke rifle (ORN I, 8:89; II, 1:262; Mallison 1959:12).

The Conferderate Navy placed the ironclad steamer *North Carolina* in commission during the later part of the year with Capt. William T. Muse in command of a complement of 150 men. Unable to cross the bar for ocean duty and subject to breakdowns of its old engine, the *North Carolina* was involved in little action. It was moored at Smithville as a guard ship for the lower entrance to the Cape Fear. The ironclad spent most of its entire career at Smithville, where it was subject to progressive deterioration below the waterline from teredo worms because of its lack of sheathing. Lieutenant William B. Cushing of the U.S. Navy stated in June 1864 that the ironclad "is but little relied upon, and would not stand long against a monitor." In April Capt. William Maury temporarily replaced Capt. William Muse, who had been overcome by typhoid fever. When Captain Maury was stricken with "acute Rhumatism," Capt. John Pembroke Jones became the final commander of the *North Carolina*. Jones spent the majority of his time overseeing the "fitting out of a blockade runner" in Wilmington, and the ironclad *North Carolina* quickly deteriorated during the absence of its captain. Finally, in September 1864, the *North Carolina* sprang a leak while anchored in the Cape Fear River. Reportedly the Confederates moved the ironclad to Battery Island where it was abandoned. In a letter to his sister, Assistant Third Engineer Charles Peek stationed at Smithville wrote: "The old North Carolina is no more. She [is] full of water before I left. The men are now employed taking the iron from her" (Wilmington Daily Journal, April 14, 1864; Charles S. Peek to Sister, July 6, 8, 24, September 16, 1864; Wilmington Dispatch, February 14, 1919; Shomette 1973:333; ORN II, 1:262; 10:203).

A year after the sinking of the ironclad, Stephen Bartlett, a U.S. surgeon stationed aboard a ship at Southport, wrote home to his brother about visiting the partially submerged wreck: "Tell Walter I fish from the Rebel iron clad N Carolina which is sunk near us but most of the decks are out of water" (Murray and Bartlett 1956:92). In the spring of 1868 the Navy Department contracted for the removal of the remaining iron plating from the *North Carolina*. In late June "some fifty tons of iron, stripped from the ram *North Carolina*," was sold at public auction for 2 1/8 cents per pound (Wilmington Star, July 1, 1868). Three years later the wooden remains of the old ram *North Carolina* were intentionally burnt to the water's edge (Wilmington Star, September 8, 1871).

CSS *Raleigh* (lost 1864)
During late 1863 the Confederate ironclad sloop-rigged steam-powered ram *Raleigh* was laid down at the wharf near the foot of Church Street in Wilmington at the James Cassidey & Sons shipyard. The *Richmond*-class ironclad, built to John L. Porter's plans, similar to those of the CSS *North Carolina*, was 150 feet in length from stempost to sternpost and 172 feet overall, with a 32-foot beam and a draft of 12 feet. Two thicknesses of iron plating, or casemate, covered a heavily constructed wooden hull, and a subsurface ram was fitted at the bow. The ironclad *Raleigh* was commissioned on April 3, 1864, under Lt. John Wilkinson, CSN, and shortly thereafter placed under the command of Lt. J. Pembroke Jones, CSN. Built for river defense, the *Raleigh* was not designed to cross the bar (Farb 1985:322; Shomette 1973:352-353; ORA I, 18:416).

The vessel's compliment numbered 188, and her armament consisted of four 6-inch rifled cannons. The engine for the ironclad may have been removed from the wreck of the blockade-runner *Modern Greece*, while another source claims the engine was new from Richmond (ORA I, 18:416; ORN I, 8:90; Shomette 1973:352). On the evening of May 6, 1864, the ironclad left Wilmington and steamed toward the bar at New Inlet accompanied by the wooden steamers CSS *Yadkin* and CSS *Equator*, to engage six vessels of the Union blockading fleet. With the smaller steamers under the protection of the guns of Fort Fisher, the *Raleigh* was successful in briefly breaking the blockade that evening, allowing a blockade-runner to escape. Fighting resumed the following morning and by 6:00 A.M. the Confederates broke off the action. While attempting to cross back over the bar at the inlet, the *Raleigh* grounded, "breaking her back" on what was known as New Inlet rip, a narrow and shifting sand strip. Charles Peek, when assigned to the other ironclad, the *North Carolina*, then stationed at Smithville, commented in a letter to his sister that "the weight of the iron upon her shield just crushed her decks in." By the following morning the water had reached the *Raleigh's* gun decks. The severely damaged vessel was salvaged of her guns and abandoned (Wilmington Dispatch, February 14, 1919; Charles S. Peek to Sis, May 9, 1864; Shomette 1973:353; Farb 1985:322; ORN I, 10:203; II, 2:632, 752).

The wreck of the *Raleigh* posed a navigation hazard for several years. In June 1864 James Randall, a young clerk in Wilmington, wrote to his friend Kate after returning from a river trip to Smithville. In his letter he noted his sighting of the remains of the ironclad *Raleigh* "just a few yards from the channel." Randall described the condition of the wreck and salvage work in progress:

> She was very much sunken at the stern, lifting her bow considerably. Her sides had been stripped of their armor, the smokestack prostrate, and altogether she had the appearance of a monstrous turtle stranded and forlorn. As we passed, the divers were engaged in removing her boilers and machinery (Williams and McEachern 1978:3).

Contemporary accounts reported that the "guns, equipment, iron, etc.," were "being saved." The salvors, unable to refloat the ironclad, removed the two boilers and destroyed the vessel. The navy sent the boilers to Columbus, Georgia to be used in the steamer *Chattahoochee*. In July Capt. William Cushing reported, after visiting the site of the wrecked *Raleigh*, that nothing of the vessel remained above water (Wilmington Dispatch, February 14, 1919; Shomette 1973:353; Farb 1985:322; ORN I, 10:24-25,203; II, 2:632, 752).

The wreck was indicated on navigation charts of New Inlet for many years. In April 1868 the schooner *L. Waring*, laden with 3,000 bushels of corn, ran upon the sunken ironclad while passing through New Inlet. The ship's crew made efforts the following day to lighten the schooner and save her from sinking. By late May 1868 the schooner had been raised and repaired at the Cassidey Brothers shipyard (Wilmington Star, April 15, 16 and 22, 1868). The *Raleigh* was partially salvaged again in 1881. A Wilmington newspaper provided the following account of that operation:

> Mr. Horton, was cruising in that neighborhood [the rip off New Inlet] a day or two since, when they came across some obstacle on the bottom, whereupon Capt. Loring, an experienced submarine diver, donned his suit and went down, placing two kegs of gun powder in the midst of the obstruction and setting it off. The result enabled him to ascertain that it was the wreck of a vessel, and he next placed a thirty-five pound package of powder under the wreck and blew it apart, when a portion of the sunken gunboat, which proved to be the front of the turret [casemate], was brought to the surface, hitched on to the schooner and brought to this port, where it was dropped on the railway at Capt. Skinner's yard and hauled up out of the water (Wilmington Star, April 6, 1881).

CSS *Arctic* (lost 1864)

The *Arctic*, (ex-*Utah*,) was a 328-ton screw steamer built in Philadelphia in 1851 at the navy yard by Theodore Birely. The two-decked, three-masted steamer measured 121 feet in length, 24 feet in beam, and 12 feet in depth and displaced 125 tons. The Pennsylvania Iron Works and the Reaney, Neafie & Company manufactured the direct-action engine and tubular boiler for the *Arctic*. The *Arctic* was built for the Lighthouse Board to be used as an unpowered relief lightship. In early 1855 the navy purchased the lightship and specifically modified the vessel with a reinforced hull, a new boiler, and rigged it as a brig to be used in a relief expedition to find the lost polar expedition of Sir John Franklin to the Arctic region. The vessel was then commissioned as the USS *Arctic*. Later, in 1856-1857, it was used to make soundings for the laying of the trans-Atlantic cable (UAU Site Files; Wilmington Journal, January 30, 1867).

In 1859 the *Arctic* was transferred back to the U.S. Lighthouse Service for use as a lightship in the Cape Fear River. The Navy Department received $10,000 for the vessel, minus machinery and boilers. The conversion of the *Arctic* to Lightship *No. 8* took place at Norfolk, Virginia. The vessel's main mast was left, so that the ship's beacon might be raised and lowered as needed. The new lightship was then towed from Norfolk to Smithville, on the Cape Fear River. On May 14, 1860, the ship was placed on station at the Frying Pan Shoals, where it remained until the outbreak of the Civil War (Reaves 1978:41,43 and 46; UAU Site Files).

Confederate forces seized the *Arctic* at the beginning of the war and converted into a receiving ship for the navy. Its machinery was removed in 1862 for use in the ironclad CSS *Richmond*, then being built in Virginia. In 1863 the vessel was converted into a floating battery. Its seaward side was partially iron-plated, and it was armed with three 42-pounder smoothbore muzzle-loading cannons. When Wilmington was threatened with capture in December 1864, the *Arctic* was "filled with rock and sunk in the channel of the river about three miles" from Wilmington to serve as an obstruction to the Federal flotilla. The location of the obstruction in front of Fort Campbell on the east side of the river is clearly indicated on a Confederate map of the period (Wilmington Journal, June 13, 1866, January 30, 1867; ORN Series II, 1:248; Naval Chronology, Part VI:198; ORN I, 11:786-787; Reaves 1978:66).

In June 1866 salvors raised the *Arctic*, described as "a dismantled hull, blackened with age and decay," from the Cape Fear River. The ship was brought to the Cassidey and Beery shipyard in Wilmington, where it was repaired and refitted during January 1867. The government equipped the *Arctic* with new rigging and lamps with the intention of converting it back into a lightship. Reports indicate that U.S. Lighthouse Service removed Lightship *No. 8* from the Cape Fear region in May 1867 for reassignment. In 1872 a new mast was stepped and minor repairs made. Lightship *No. 8* continued to serve as a relief lightship until a structural survey in 1878 condemned the ship. On April 16, 1879, the lightship was sold at public auction for her junk value (Wilmington Journal, June 13, 1866, January 30, 1867, September 8, 1870; Reaves 1978:71-72; UAU Site files).

CSS *Yadkin* (lost 1865)

The *Yadkin* was a wooden screw steamer built at Wilmington for the Confederate forces during 1863-1864. The 300-ton gunboat was English built with no masts, one smokestack, a clear deck with awnings spread fore and aft, and two mounted guns. The vessel was placed under the command of Lt. William A. Kerr, and served as flagship for Comdr. W. F. Lynch. In December 1864 the Confederate command ordered the *Yadkin* to carry reinforcements to Battery Buchanan on the southern end of the point to oppose an anticipated Union attack upon Fort Fisher. On February 22, 1865, to prevent the gunboat from falling into enemy hands, the Confederates deliberately set it afire during the evacuation of Wilmington. The *Yadkin* was sunk as part of the obstructions below the Dram Tree, just opposite Fort Campbell. The location of the obstructions and the wreck in front of Fort Campbell are indicated on a Confederate map of the period. In January 1866 salvors raised the wreck of the *Yadkin* from the river where they found the engine to be in good order. The boiler had been removed prior to the sinking and sent to Fayetteville. The government placed the hull of the *Yadkin* for sale in March 1867 (Shomette 1973:393-394; Naval Chronology, Part VI:326; Wilmington Journal, January 31, 1866, March 6, 1867; ORN I, 10:202; Bragg 1865).

North Heath (lost 1865)
The blockade-runner *North Heath* was built in England for Thomas Begbie of the Universal Trading Company. The vessel served in the Atlantic from March 1863 to January 1865, making five successful runs in five attempts. The 343-ton sidewheel steamer was 229 feet in length, 25 feet in beam, and had a depth of 13 feet. On an attempt to sneak into the Cape Fear River entrance in October 1864, the blockade-runner was badly damaged. As a result, it was still in port when the Federal forces arrived off Fort Fisher in December of that year. When Wilmington was forced to evacuate in January 1865, the crew of the *North Heath* sank their vessel to blockade the channel opposite Fort Lee in the Cape Fear River. A Confederate map drawn the following month shows the position of the sunken vessel (Wise 1988:208, 314; Sprunt 1920: 112-114; ORN Bragg 1865).

The Beery's of Wilmington made an unsuccessful attempt to raise the wreck of the *North Heath* in December 1869. In early 1874 the government sold the wreck to Maj. John M. Foote of Weldon, North Carolina, who planned a second salvage attempt to raise the blockade-runner. At that time the twin funnel smokestacks of the *North Heath* were still visible above the waterline. By March 1874, Major Foote was waiting to have a large lighter built at the Beery shipyard to be used in raising the vessel. Foote's plans to raise the *North Heath* ended in failure. In 1886 the American Dredging Company received a contract to remove the wreck. The company was successful in moving the vessel to one side of the existing channel and then blasting the structure down to the prevailing depth of the channel. The company later removed parts of the wreckage to obtain the 26-foot depth (Wilmington Star, December 7, 1869, January 14, March 2, 1874; Wilmington News, October 5, 1931).

The rest of the sunken vessel apparently remained undisturbed and forgotten until April 29, 1927, when dredging of the river again revealed the wreckage. Capt. Edgar Williams, harbor master of Wilmington, identified it as the remains of the blockade-runner *North Heath*. Salvors once again made an effort to remove the remains reported as lying against a curve in the river near the Galena Signal Oil Company plant and Carolina Shipyard below Wilmington. In 1927 the main channel was realigned to the westward to avoid dredging rock on the eastern edge, thus once again exposing the wreck. It was estimated that 125 feet of the iron vessel still remained. In May 1927 salvors placed dynamite on the wreck of the *North Heath* with the intention of blowing the vessel into several pieces. The fragments of wreck were then to be removed by the snag boat *Fayetteville*. (Wilmington Star, May 10, 1927; Wilmington News-Dispatch, April 30, 1927, November 2, 1931).

The 1927 attempt to remove the wreckage of the *North Heath* appears to have been only partially successful, as in October 1931 the Wilmington District, Corps of Engineers once again issued bids for the removal of the wrecked Civil War blockade-runner. Charles T. Johnson of Lewes, Delaware received an award for $7,900 to remove the wreckage that lay in a part of the channel near the head of Clarks Island. The Johnson company planned to blow the wreckage down to a depth of not less than 35 feet and to remove the debris by means of a bucket derrick. Blasting began in December 1931 to make way for the 30-foot channel and was completed by February 1932. The salvors delivered one of the iron plates from the *North Heath* to the city government later that year to be mounted as a memorial. A Defense Department contract in 1947 once again called for the removal of the *North Heath* "above the 33 foot level." The "superstructure" of the blockade-runner was to be exhumed for dredging operations to deepen the Cape Fear River channel (Wilmington News, October 5, November 2, 6, 1931, May 13, 1947; Wilmington Star, December 1, 10, 1931, February 4, December 13, 1932).

Henrietta (lost 1865)

The steamer *Henrietta* was one of the original two steamboats to begin operating on the Cape Fear River in 1818 (the other was the *Prometheus*). James Seawell built the steamboat *Henrietta* in 1817-1818 on his plantation on the east side of the Cape Fear River, 3 miles above Campbellton, now Fayetteville. Named for Sewell's daughter, the side-wheeler *Henrietta* was launched on April 30, 1818, and placed under the command of Capt. Charles Taws. Originally the steamboat had no upper deck, and its cabin was set down in the hold. Its dimensions measured 119 feet in length, 20 feet in beam, and a depth of 6 feet (New Bern Centinel, May 9, 1818; Johnson 1977:31,35-36; UAU site files).

In early July 1818 the steamboat made its first trip from Fayetteville to Wilmington during low water. The distance of 115 miles took six days, and the vessel achieved a speed of 8 miles per hour. Mechanical problems plagued the *Henrietta* in its early travels, and steering was very cumbersome. The vessel was geered "to work like gog-wheels like a mill." In order for the steamboat to navigate sharp turns in the river it often had to be "dropped around with a line." At other times, members of the crew had to secure the bow to a tree or rock on shore and pull the boat around. In 1820 Capt. Benjamin Rush of Philadelphia changed the vessel's gearing to a chain-motion drive, and later to a connecting-rod-and-crank drive. With the improvements in maneuverability and Capt. Rush as its master, the *Henrietta* increased its passenger and freight service. Improvements to the vessel included adding an upper deck and better accommodations, and later more powerful machinery to modernize the steamer (Johnson 1977:36-37).

While passing below the Dram Tree south of Wilmington in 1865, one of the three boilers aboard the *Henrietta* exploded, instantly sinking the steamboat. At the time of its loss, it was said she was the oldest steamer in the United States. After the wreck, salvors recovered one of the boilers and sold it to a planter in the vicinity for use on his farm. In September 1883 the wrecking steamer *Siam* recovered a second boiler. As late as June 1891 "the bones" of the *Henrietta* were still visible and "rotting" below the city. It was then suggested that the wreck be preserved as a "historic relic" (Wilmington Star, September 21, 1883; Wilmington Messenger, June 25, 1891; Wilmington Weekly Star, July 24, 1891; Wilmington Dispatch, February 14, 1919).

Spray (lost ca. 1860 -1890)

William and Albert Thatcher built at their Wilmington, Delaware shipyard in 1852, the 107-ton wooden side-wheel steamer *Spray* for Richard B. Gilpin. The *Spray* measured 133 feet in length, 18.5 feet in beam, and had 4.5 feet depth of hold that drew less than 24 inches of water. The steamer had a single deck with square stern and carried no masts. Its two 50-horsepower engines were built by Betts, Pusey, Jones & Seal at the Wilmington Iron Works in Delaware. Each had a 10-inch-diameter piston and 48-inch stroke that turned paddlewheels 18 feet in diameter (Wilmington Journal, December 22, 1854, January 5, 1855; UAU Site Files, Enrollment No. 15, May, 20, 1852; Lyttle-Holdcamper 1975:201).

In early 1853 A. H. Van Bokkelen, commission merchant of Wilmington, North Carolina, purchased the *Spray* and brought it to North Carolina to be placed upon the Cape Fear River between Fayetteville and Wilmington (Wilmington Journal, January 14, 1853). By March the "handsome and swift" steamboat was making regular tri-weekly trips between Wilmington and Smithville (Wilmington Journal, March 18, 1853).

Van Bokkelen advertised for sale in December 1854 the steamer *Spray*, "fitted up for carrying passengers" and a "large quantity of freight." The following month Van Bokkelen went into the "business of purchasing and manufacturing of Naval Stores also Cooperage, Wharfage, and Storage of produce" with his brother William. The vessel enrollment shows that Van Bokkelen still owned the *Spray* as late as September 1855. By March 1856 Van Bokkelen had sold a half-interest in the steamer to Herman H. Robinson (Wilmington Journal, December 22, 1854, January 5, 1855; Enrollments, September 8, 1855, March 7, 1856).

Newspaper accounts and enrollments document the steamer *Spray* up to 1858, at which time there is no further mention. At the beginning of the Civil War Confederate forces likely purchase the vessel and placed into service. One possibility is that the name of the vessel was changed and that the *Spray* may have been the CSS *Caswell*, which was deliberately sunk near Wilmington in 1865. Both the *Spray* and the *Caswell* were wooden side-wheel steamers, although little information is known about the Confederate vessel prior to the war. The date the *Spray* sank is unknown.

In October and November 1981 the North Carolina Underwater Archaeology Unit investigated the remains of a side-wheel steam vessel located in the Northeast Cape Fear River above the Hilton Railroad Bridge at Wilmington. The investigation was conducted as part of a cultural resource identification and evaluation survey of a portion of the Northeast Cape Fear River prior to intensive dredging activities. The measured dimensions of the steamer were nearly identical to those of the *Spray*. One horizontal slide-valve steam engine was still attached to the wreck. Another engine and the boiler had been previously removed. Artifactual material recovered from the wreck suggested that the vessel sank sometime between 1860 and 1880 (Saltus 1982; Lawrence 1987:6).

The most prominent feature of the site was the presence of iron straps or bands protruding from the river bottom on both the starboard and port sides at the turn of the bilge. The 1.5-inch-by-half-inch bands were spaced every 15 inches and were found to run athwartships on the outside of the hull planking, similar to the hoops on a barrel. For obvious reasons, the site was named the "Band Wreck." Wilmington historian James Sprunt similarly described the *Spray* as "shaped like a barrell, hooped up on the sides" (Lawrence 1987:5; Sprunt, 1896:35).

The discovery of a 1891 newspaper article provided confirmation that the "Band Wreck" was indeed the steamboat *Spray*:

> Government wrecking crew yesterday succeeded in raising the boiler and engine of the steamer *Spray* which was sunk several years ago in the Northeast Cape Fear River just north of the railroad bridge at Hilton in the northern limits of the city (Wilmington Star, October 23, 1891).

The 1892 annual report of the Corps of Engineers further confirmed the removal. The report stated that "parts of an old steamboat, scow, and boiler were removed from the channel above Hilton Bridge, 2½ miles above Wilmington" (Corps of Engineers Annual Report 1892:1153).

CSS *Caswell* (lost 1865)

The *Caswell* was a wooden side-wheel steamer used by the Confederates as a tender at the Wilmington station between 1861 and 1862. Initially the vessel was under the command of Acting Master William B. Whitehead, CSN. The *Caswell* was burnt at Wilmington in February 1865 to avoid capture by the Federal forces. This vessel may have been the steamer *Spray* prior to the war (ORN Series II, 1:250; Shomette 1973:245; UAU Site Files).

CSS *Equator* (lost 1865)

The Confederate side-wheel steamer *Equator* was fitted out for gunboat service in the Cape Fear River in March 1864 and equipped with one gun. The 64-ton wooden tug was built in Philadelphia in 1854. Enrollment records for the vessel at both Philadelphia and Wilmington in 1854 show the vessel to be 68 feet in length and 16 feet in the beam, with a depth of 6 feet 6 inches. The steam tug was single decked with no masts.

The Confederates burned the *Equator* in January 1865 to prevent capture by Federal forces (Shomette 1973:264; Lytle and Holdcamper 1975:66; UAU Site Files).

Cape Fear (lost 1865)

The Confederate steamer *Cape Fear* was built in London, England, in 1862 by John and William Dudgeon, who gave it the name *Flora*. The ship measured 161.3 feet in length, 22.5 feet in beam, and 12.4 in depth. Alexander Collie and Company, the owners of the 434-ton vessel, used it as a blockade-runner until September 1863 when they sold it to the Henry Hart of the Consolidated Steamship Company. As a blockade-runner, the *Flora* was successful in running the blockade eleven times. Hart owned the vessel for only one month, during which time he renamed it the *Virginia*. In October 1863 Hart sold the steamer to the Confederate States government for $500,000 in cotton. The Confederate authorities renamed the ship the *Cape Fear* and operated her on the Cape Fear River as a transport until the evacuation of Smithville. On the night of January 16, 1865, the crew scuttled the *Cape Fear* near Fort Caswell (Wise 1988:299-300).

During the summer of 1870 the Beery firm raised the sunken Confederate steamer and took it into Wilmington. In September Beery had the hull towed to Baltimore, in company with another recovered wreck, the Federal gunboat *Thorn*. The *Cape Fear* was falsely reported as again sunk off Cape Lookout during the trip. Several days later the Norfolk Virginian reported that the vessels had safely arrived in Norfolk at that port on their voyage to Baltimore (Wilmington Journal, September 8, 16, 20, 28, 1870).

Thorn (lost 1865)

The United States transport steamer *Thorn* was engaged as a lighter on the Cape Fear River since the Federal forces occupied Wilmington. The *Thorn*, built in 1862, measured 127 feet in length, 26 feet in beam, and 14½ deep. On March 5, 1865, the 403-ton steamer was going downriver to lighten a vessel at the bar when it ran upon a rebel torpedo in the river just below Fort Anderson. Adm. David Porter had ordered that enemy torpedos be removed from the river after the occupation, so the captain of the steamer had not anticipated any threat from torpedoes still remaining there. One supposition was that a "prowling band of rebels," had somehow planted the torpedo, probably with a view of blowing up one of the transports going out of the river loaded with paroled Federal prisoners (Wilmington Herald of the Union, March 6, 1865; UAU Site Files).

The bow of the *Thorn* struck the torpedo and instantly broke allowing the steamer to quickly fill with water. The ship sank in less than two minutes with no loss of life. The *Thorn* was considered an old vessel, having been in service since the Burnside Expedition to Hatteras Inlet. In September 1870 the Baker Wrecking Company of Norfolk raised the *Thorn* from the river and towed to the Beery shipyard in Wilmington for repairs. Later in September, the owner, James Clark &Co. towed the *Thorn*, along with the *Cape Fear*, another raised vessel, to Baltimore. The vessels were falsely reported as lost off of Cape Lookout on the voyage north (Wilmington Herald of the Union, March 6, 1865; Wilmington Journal, September 8, 9, 11, 28, 1870; Sprunt 1992:499).

Planet (lost 1870)
On a Sunday morning in early January 1870, the schooner *Planet*, owned by Peter Davis and laden with dry goods, ran upon the wrecked steamer *Kate* a half-mile above Smithville. At the time the schooner struck the wreck, it was going "at an immense speed, the wind and tide both being with her. . . ." Submerged wreckage punched a hole in the *Planet*'s hull, causing the schooner to capsize and sink. The seven passengers and crew, along with a small portion of the cargo were saved (Wilmington Star, January 11, 1870; Reaves 1978:78).

J. S. Underhill (lost 1878)
The 80-ton steamer *J. S. Underhill* was built in New York in 1853 and measured 99 feet in length, 22 feet in beam, and 6 feet in depth. The square-sterned vessel was said to have one deck and no masts. Its early history is unknown until the 1870s, when it was reported as running as a packet between Wilmington and Smithville. Occasionally the *Underhill* substituted for another steamer, the *Dixie,* on the route to Smithville (Wilmington Star, March 19, 21, April 13, 1876; Wilmington Enrollments #2, July 1878).

An exchange in ownership between the *Underhill* and the *Dixie* occurred in late 1876. O. G. Parsley, owner of the steamer *Dixie*, arranged a trade with the owners of the *Underhill*, by which Parsley became the proprietor of the latter boat. The *Underhill* took the place of the *Dixie* as a regular packet between Wilmington and Smithville. The owners took the *Dixie* to New York (Wilmington Star, December 10, 1876).

By 1878 the steamer *J. S. Underhill*, with Capt. B. F. Latham as master, was making regular round trips between its wharf at the foot of Orange Street and Smithville, leaving in the morning and returning in the afternoon. After several months of service, the steamer was temporarily taken off the river in September 1878 to undergo a thorough overhauling and be provided with some improvements and a new boiler. The *Underhill* was expected to be out of service for about one month, during which time the steamer *Passport* assumed the run to and from Smithville and carried the mail (Wilmington Star, June 30, September 11, 1878).

At 3:30 A.M. on the morning of December 24, 1878, the steamer *J. S. Underhill* was lying at its wharf at O. G. Parsley & Co., when it caught fire. The fire originated on a timber raft tied on the starboard quarter of the steamer. The *Underhill* was pointed downstream at her wharf where she was awaiting repairs when the fire spread with the "west" or "southwest" wind to the steamer. A watchman, asleep in the cabin of the *Underhill*, awoke to notice the ship in flames. The fire quickly spread to the wharf, the nearby steamer *North East*, and all the buildings on the southern end of the block. In addition to the loss of the two vessels, the fire consumed everything from Orange Street to Muster's Alley. The steamer burned to the water's edge. A vessel towed the charred hulk to the west side of the river "near Northrop & Cummings timber pen" and the "neighborhood of C. W. McClammy's distillery," where it sunk, "her smoke-stack being just visible above the surface of the water." The mill of Northrop and Cummings was located on the east side of the river between Castle and Queen Streets. The steamer was valued at $6,000 and was fully insured (Wilmington Sun, December 25, 1878; Wilmington Star, December 27, 1878; Wilmington enrollments #2, July 1878).

The wreck of the steamer *Underhill* lay on the shore of Eagles Island for a number of years until it was determined that the "machinery and other articles of value still remaining in the hull" would be salvaged. In April 1882 the schooner *Wave*, belonging to Messrs. Watson & Eckel, and a salvage diver were engaged in salvaging the sunken steamer on the west side of the river, nearly opposite Kidder's mill at the foot of Kidder Street. Two years later the wreck of the *Underhill* was again mentioned when the wrecking schooner *Siam*, also owned by Watson & Eckel, sank near the steamer (Wilmington Star, April 22, 1882).

Siam (lost 1884)

The two-masted schooner *Siam* was built in Greenpoint, New York about 1866, to the dimensions of 64 feet in length, 25 feet in width, and 5 feet in depth. The 51-ton vessel was single decked with a square stern. The *Siam* was enrolled early in its career at Edenton and the Rappahannock, but was enrolled by 1874 in Wilmington. The local owner of the schooner was a G. Harris, with various masters listed (North Carolina Enrollment Records, 1866 - 1874).

In late January 1874 the schooner *Siam*, commanded by a Captain Ackley, with a cargo of corn, was reported partially sunk on the shoal just inside New Inlet bar. At that time it was thought that there was little hope of raising the schooner, which was being stripped in preparation for being abandoned. The cargo of corn was entirely destroyed. Within a few weeks, however, the *Siam* was removed from the shoal and brought to Wilmington for repairs. B. W. Beery & Son accomplished the salvage with their steam pump to refloat the vessel (Wilmington Star, January 25, February 4, 17, 1874; North Carolina Enrollment Records, 1875-1881).

Contemporay accounts once again reported in 1881 the schooner *Siam* ashore, this time between Fort Caswell and Smithville as a result of a September hurricane. The vessel was, however, apparently successfully removed and returned to service. The *Siam*, owned by Watson & Eckel, finally met with an unsurmountable disaster in early April 1884. While at anchorage on the west side of the river, nearly opposite Castle Street, the *Siam* was destroyed by fire and sank near the wreck of the steamer *Underhill*. The watchman discovered the schooner on fire just before midnight. By the time help arrived, the vessel was engulfed in flames. Captain Myers of the fire department, with two or three other firemen, rowed to the burning *Siam* but were powerless to do any good in saving the ship. Captain Myers described the destruction as "a grand spectacle to witness the fire as it crept up the spars and rigging and out on the booms and bowsprit, burning the furled sails and conjuring up all sorts of fantastic shapes and shadows and optical illusions." The owners estimated their loss from $4,000 to $4,500. Also destroyed by the fire were a hoisting apparatus, including an engine and a boiler used for wrecking, diving apparatus, and a steam pump (Wilmington Star, April 12, 22, 1882).

Swiftsure (lost 1885)
On July 4, 1885, the British brig *Swiftsure* sprang a leak and was run aground opposite Smithville on Battery Island. At the time, the brig was loaded with 173,000 feet of lumber. No additional information is known on the vessel (Reaves 1978:87).

Wave (lost 1886)
The schooner *Wave* sank on January 14, 1886, when ice forced the vessel, used as a lighter, into the Battery Island shoals. The ice punched a hole in the side of the schooner, causing it to fill and sink. The *Wave* was loaded with rosin for the barque *Richard*, at anchor in Smithville. No additional information is known on the vessel (Reaves 1978:88-89).

Waccamaw (lost 1886)
Originally named the *Nuestra Señora de Regla*, the steamer was built in New York City as a ferry for service in Havana, Cuba, in 1861. During the spring and summer of 1861, the *Nuestra Señora de Regla* took shape under the watchful eye of Capt. Ignacio Reynals. The Bay of Havana & Regla Co. of Cuba hired Captain Reynals to be its master and to supervise the construction of their new steam ferry at the John Englis shipyard in New York. According to the plans and specifications, the vessel was a 139-foot side-wheel steamer with a beam of 28 feet, a draft of 10 feet 9 inches, and a burden of 300 tons. It was built largely of seasoned white oak and had two pilothouses on the promenade deck, two rudders, and a square-rigged foremast and topmast. The vessel's two paddlewheels were approximately 28 feet in diameter and were powered by an inclined engine with a 36-inch cylinder and a 9-inch stroke. The ship had two iron bands in the bow, one of which was sheathed in copper and surrounded the entire ship. On October 12, 1861, the *Regla* steamed out of New York harbor under the neutral flag of Spain. After being damaged by heavy seas, it returned to New York for repairs and sailed once again on October 27 (Triebe and Wilde-Ramsing 1992:10,12).

On its maiden voyage Union ships captured the *Regla* near Charleston, South Carolina on December 1, 1861, as a supposed blockade-runner and towed to Hilton Head Island. On January 29, 1862, the Union ships delivered the *Regla* to the U.S. Navy at Port Royal. The U.S. Navy converted the vessel into a gunboat under the name

Commodore Hull. From 1862 to 1865 it played an active part in the sounds and rivers of eastern North Carolina, including the critical three-hour engagement with the CSS *Albemarle* in May 1864 (Triebe and Wilde-Ramsing 1992:14-15).

After the war, the steamer was decommissioned, sold to private interests in Wilmington, and renamed the *Waccamaw*. Its new owners brought the ship to Wilmington and converted it into a double-ended ferry boat in late 1865 for use as a passenger vessel for the Wilmington & Manchester Railroad. The *Waccamaw* conveyed passengers from Wilmington to the Eagles Island depot. In February 1869, after a railroad bridge across the Cape Fear River had been completed, the Wilmington & Manchester Railroad company advertised the *Waccamaw* for sale. In early 1871 the steamer sank at its wharf in Wilmington. A steam pump belonging to Captain Beery was used to pump out the steamer so that it could be raised. The *Waccamaw* received necessary repairs, including a new boiler, and sold to the Wilmington and Smithville Steamboat Company. The steamer was again in operation by June, making trips between Wilmington and Smithville (Wilmington Star, February 10, 1869, April 21, 22, June 17, 1871, September 7, 1886).

Over the next three years the steamer changed hands at least two times. On November 2, 1872, F. W. Kerchner purchased the vessel and converted it into a wrecking steamer. Kerchner added a Worthington wrecking pump to the vessel and used it in the salvage of wrecked vessels. Capt. Benjamin Beery tested the pump for use on the *Waccamaw* in late 1872. The wrecking pump was capable of lifting fifty to sixty barrels per minute for freeing wrecked vessels. One of the first uses for the new pump was aboard the schooner *Maria C. Frye* near Smithville. Kerchner owned and operated the *Waccamaw* only one year until he sold it to George Harris in February 1874. When Harris purchased the vessel, he converted the steamer *Waccamaw* back into an excursion boat (Enrollment records 1871-1874; Wilmington Star, October 24, November 3, 28, 1872, February 14, 1873, May 21, 1874).

The *Waccamaw* apparently served as an excursion steamer, then as a towboat and lighter on the river, until Harris laid up the vessel in 1884. Amazingly, it was during the previous year-more than twenty-two years since the U.S. Army had seized the *Nuestra Señora de Regla*-that the owners finally reached a financial settlement (Triebea and Wilde-Ramsing 1992:17). In September 1886 the *Waccamaw* met its end when it was destroyed by fire while at anchor at Eagles Island across from the city. The following Wilmington newspaper notice described the demise of the vessel:

> The old side-wheel steamer *Waccamaw*, that has been lying for a long time on the west side of the river, opposite Capt. Skinner's ship-yard, was burned to the water's edge yesterday forenoon. The fire broke out about 11 o'clock, and is thought to have been caused by some boys who were seen leaving that side of the river in a small boat just before the fire broke out (Wilmington Star, September 7, 1886).

As late as 1920 the remains of the *Waccamaw* were seen on the shore of Eagles Island, where "her bones [were] bleaching in the ship graveyard on the west side of the river." In 1987 the North Carolina Underwater Archaeology Unit recovered the old Worthington pump used on the wrecking steamer from the shore at Eagles Island (Wilmington Star, February 29, 1920).

Sylvan Grove (lost 1891)

The wooden hull excursion steamer *Sylvan Grove* was built in New York in 1858 by Thomas G. Collyer (Wilmington Messenger, May 5, 1888). The 320-ton steamer had three decks, including a hurricane deck. It had a promenade deck forward, a double cabin 100 feet long, and a ladies' saloon aft. Its dimensions were 145 feet in length overall, 25 feet in beam, and 8 feet in depth. The engines and boiler were all below the lower deck. The *Sylvan Grove* had one condensing engine of 36 inches in diameter and 8 feet of stroke and a turtle-back boiler 27 feet long and 88 inches in diameter (Wilmington Star, May 5, 1888; UAU Site files).

In May 1888 Capt. John W. Harper purchased the double side-wheel steamer in New York from the Highland Steamboat Company, one of five of the Sylvan line. Capt. Samuel Skinner, the new owner, planned to use the vessel on the run between Wilmington, Carolina Beach, and Southport. In 1890 Captain Skinner transfered title to the boat to the Southport Steam Boat Company of Wilmington. The vessel's hull above the water was painted white, with black gunwales, while her wheelhouses were a light buff. A local newspaper claimed that "the boat is admirably adapted for the purpose for which she is to be used, of just the right size, comfortably fitted up, with well sheltered decks, abundant light and ventilation in all parts of the vessel, and with every appliance for safety and speed." The *Sylvan Grove* was licensed to carry 650 passengers but had ample accommodations for a much larger number (Wilmington Star, May 5, 1888; Reaves 1990:8; Peluso 1977:78; Heyl 1965:303).

On January 9, 1891, the *Sylvan Grove*, laid up for the winter, burned to the water's edge while moored at the wharf pilings of the Northrop Company on the west side of the river at a point about opposite Kidder's mill. When the fire was discovered across the river, an alarm was sent in from box No. 53, at the foot of Dawson Street. The cause of the fire was unknown, but it may have started from a spark emitted from a passing steamer or from a stovepipe (Wilmington Star, January 10, 11, 1891; Wilmington Messenger, January 10, 1891).

Jacob Brandow (lost 1898)

The Cape Fear Transportation Company in Charleston, South Carolina, purchased the *Jacob Brandow*, a new tugboat, on July 23, 1895, and brought it to Southport. The wooden-hulled tug measured 78 feet in length and 17 feet 5 inches in beam and drew 8 feet 9 inches of water. On June 21, 1898, the *Jacob Brandow* was destroyed by fire at its Southport dock. The vessel was towed to Battery Island, grounded in shallow water, and abandoned (Reaves 1990:105).

Frances Elizabeth (lost 1912)
The 30-ton schooner *Frances Elizabeth* was built in 1879 in Charleston, South Carolina, and was listed in 1904 with Fernandina, Florida as her home port. The vessel measured 60.3 feet in length, 18.8 feet in width and 7 feet in depth and was originally manned by a crew of eight. By 1911 the *Frances Elizabeth* had been brought to the Cape Fear River by her owners where it served as a pilot boat with a reduced crew size of only three. Captains J. J. Adkins, J. O. Daniels, and Hawley and Jack Adkins owned the vessel. On July, 21, 1912, when about 2 miles north of Southport, bound for Wilmington, the pilot boat exploded when gasoline leaked from the fuel tank onto the 100-horsepower Globe engine. Captain Daniels, who was in command of the boat, was slightly hurt, and Capt. Bertram Adkins was seriously burned. The *Frances Elizabeth* had been lying at its wharf at Southport for several weeks and was being brought to Wilmington to be placed on the marine railway for repairs. The vessel was valued at $7,000 (Wilmington Star, July 23, 1912; Lytle and Holdcamper 1975:61; Vessel Enrollments 1911 and 1912).

A. P. Hurt (lost 1923)
At Wilmington, Delaware, the shipbuilders Pusey & Jones built in 1859-1860 the sternwheel steamer *A. P. Hurt* for T. C. and B. G. Worth for use in their Cape Fear Line. The 100-ton iron-hulled steamer was 100 feet in length, 17 feet in the beam, and had a draft of 2 feet (Wilmington Dispatch, August 21, 1915). It was powered by two noncondensing engines, 13 inches in diameter, of 5-foot stroke, and had one 15-foot boiler 4½ feet in diameter. It could carry up to 400 barrels. During the Civil War the military used the *Hurt* as a troop transport and for hauling supplies. It transported U.S. troops from the Fayetteville arsenal to Wilmington after the Confederacy seized the arsenal in 1861. About 1865 Union forces captured the *Hurt* during high water near Fayetteville and taken to the vicinity of Chinquapin, above Wilmington. The steamer remained near Chinquapin until it was indirectly returned to its owners (Wilmington News, June 12, 1934; Johnson 1977:51,54-55).

It was reported that the *A. P. Hurt* would be "laid up" or "retired" in February or March 1890. With the withdrawal of the steamer from the Cape Fear, only two other steamboats were then in use between Wilmington and Fayetteville (Wilmington Weekly Star, February 17, 1890). Two years later the owners leased the *A. P. Hurt* to Capt. D. J. Black to run as a passenger and freight boat between Wilmington and points on the Black River. On December 1, 1892, the steamer made its first run on the new line. The boat made three runs each week to Long View and Point Caswell (Wilmington Weekly Star, December 2, 1892). The steamer burned to the waterline in 1894 but was rebuilt (Wilmington Weekly Star, March 18, 1897).

On March 17, 1897, the *A. P. Hurt* was involved in a major collision with the draw of the Hilton Bridge while returning from Powers, Gibbs & Co.'s guano plant.

> When she neared the bridge it was observed by the crew that the draw was not fully open, but the assistant pilot-Irving Parker-thought he could steer the boat safely through and didn't signal the engineer to back water. The result was the *Hurt* was raked from bow to stern. The damage was estimated as being between $500 and $1,000. The hurricane, promenade and lower decks were all badly crushed on one side. The ladies' cabin and two state rooms were also damaged. The stanchions, hog chains and king posts were torn from their places, and one of the davits broken. There was no damage to the engine or to the hull.

The *A. P. Hurt*, owned by the Cape Fear and Black River Steamboat Company, had to be towed to its wharf for several weeks' worth of repairs (Wilmington Weekly Star, March 18, 1897).

In February 1905 the owners, the Cape Fear and Peoples' Steamboat Company, sold at public auction the forty-five-year-old *Hurt* to W. J. Meredith for $2,475. Meredith formed a new company to operate the boat between Wilmington and Fayetteville. Considerable repairs were made to the steamer by its new owner before it was placed in service again (Wilmington Messenger, February 12, 1905). In 1900 the *A. P. Hurt* had its boiler condemned after forty years of service. A boiler from the sunken *Katy* was installed in the steamer (Johnson 1977:65).

In 1913 the *A. P. Hurt* again burned. After the steamer was raised and rebuilt by the Wilmington Iron Works, it was called the *C. W. Lyon*. The original *C. W. Lyon*, built in 1905, was destroyed by fire in November 1913 about 19 miles above the city. Within two years the *C. W. Lyon* was destroyed again, only to have its hull raised and rebuilt and the name changed back to *A. P. Hurt* (Wilmington Star, December 16, 1915; Wilmington News, March 6, 1939).

In August 1915 the Wilmington Iron Works had nearly completed work on the "new" *A. P. Hurt* for the Planters' Steamboat Company. The owners planned to use the steamer to carry passengers and freight, especially cotton, on the Cape Fear River between Wilmington and Fayetteville. The *Hurt* was described as having a flat bottom, with a stern wheel and two decks. The lower deck was used for freight, and the upper had a number of staterooms, a dining salon, and a passenger salon (Wilmington Star, December 16, 1915). In December 1915 the steamer made its maiden trip up the Cape Fear to Fayetteville carrying freight and passengers (Wilmington Star, August 20, December 16, 1915; Wilmington Dispatch, August 21, 1915).

The lengthy career of the *A. P. Hurt* finally came to an end on March 6, 1923, while the vessel was tied to its wharf at the foot of Orange Street. During that evening a heavy southwest gale pushed waves over the stern of the heavily laden ship, causing it to sink in 25 feet of water. Because of the *Hurt*'s low free board and the fact that it was heavily laden with 12 tons of merchandize and 68 tons of bagged fertilizer, river swells that broke over the vessel quickly filled its engine room. Pumps were unable to keep up with the rising water. In less than an hour the four crew members on board abandoned their vessel. With the hull resting on the bottom, the severe action of the waves destroyed the exposed upper decks, cabins, and pilothouse. Only the hull, boiler, and engines were worthy of salvage (Wilmington Star-News, March 7, 8, 1923).

Sixteen years after the *A. P. Hurt* sank along the Wilmington waterfront, the Corps granted Capt. W. C. Manson a permit to raise the wreck of the old steamer. To what extent he was successful is not known, although part of the *Hurt* remains buried in the mud at the foot of Orange Street. The *A. P. Hurt* was not only one of the last passenger boats to run on the Cape Fear, but also set a record for longevity, with sixty-three years of service on the river (Wilmington News, January 24, 1939; Johnson 1977:61; Tidewater 1988).

Belfast (lost 1929)

The *Belfast* was a 944-ton schooner barge built in Wilmington, Delaware, in 1913. The barge was 181 feet in length, 40 feet in beam, and 15.4 feet in depth. Gales that struck the coast of North Carolina on January 5 and 6, 1929, caused three barges to break free from their tug the *Neptune* while at the Frying Pan Shoals. The tug and barges were bound from Georgetown, South Carolina, and Fernandina, Florida, to New York with lumber and piling. The Coast Guard cutter *Modoc*, dispatched to the shoals on January 6, found the three barges flying distress signals. The *Darien* was in a waterlogged condition; the *Belfast* was in a waterlogged and sinking condition; and the *Beaufort*, in good condition, had lost its deck load of lumber (Berman 1972:109; UAU Site Files; Wilmington Star, January 7, 8, 9, 1929).

The four crewmen of the sinking *Belfast* had abandoned their barge forty-five minutes before the arrival of the cutter and had taken to their lifeboat, the oars of which they had lost. Another steamer, the *Birmingham*, was standing by when the cutter arrived. The *Modoc* secured the sinking *Belfast* and anchored for the night along with the other vessels. On the following day the cutter towed the *Belfast* to the entrance of the Cape Fear River and put the crew of the *Belfast* ashore at Southport. The tug *Neptune*, after receiving repairs in Wilmington, returned to the shoals on January 7 and 8 to tow the other two barges into the river for repairs (Wilmington Star, January 7, 8, 9, 1929).

On January 8, 1929, the *Belfast* was apparently abandoned west of Battery Island in its sinking condition. Ten years after the *Belfast* sank, the Corps of Engineers mapped the wreck location. The map shows an "original" position for the vessel, with its bow pointed toward the island, as well as the distribution of scattered debris, indicating that the vessel was moved. A review of the Corps of Engineers records could not find any evidence to support the possibility that the sunken barge was removed from near Battery Island (Wilmington Star, January 7, 8, 9, 1929; USACOE 1939).

General H. G. Wright (lost ca. 1939)
The *General H. G. Wright* was a government side-wheel steamer built in 1884 at Fayetteville for the U.S. Army Corps of Engineers. The 130-ton *Wright* was flat-bottomed, with only a draft of about 26 inches, and could be used for improvements of the Cape Fear River and tributaries. Its original dimensions were 60 feet long by 10 feet wide. In 1885 the Corps remodeled it to provide a more suitable hull for redispostion of its machinery, thus reducing its draft from 26 inches to about 14 inches. The steamer's new dimensions were 101 feet 6 inches in length, 25 feet in beam, and 5 feet 6 inches in depth. The changes also improved the accommodations for its working crew and increased its speed from 3.5 to 6.25 miles per hour. In 1887 a new and larger boiler, capable of producing twice the power, was installed on the vessel at Skinner's shipyard (Wilmington Star, January 11, 1885, November 2, 1887, April 13, 1890; UAU Site Files; USACOE-AR 1884:1043, 1885:170, 1887:1046).

By 1896 the hull of the *Gen. H. G. Wright* was rotten and worn out. It was decided that a new snag boat would be built as a replacement, probably at the U. S. government's marine railway at the foot of Queen Street. The government had built a new hull, larger and stronger than the old one, equipped with an A-frame, boom, and hoisting engine. They altered the old machinery to be used as a stern-wheel boat with the same name. The new dimensions were: length overall, 102 feet; beam, 20 feet 6 inches; depth of hold, 5 feet; draft, 2 feet 6 inches. The total cost of rebuilding the *H. G. Wright* was $2,252.64. The snag boat, while lying at a Queen Street dock in April 1897, caught on a submerged piling. As a result of the falling tide, the piling punched a hole in the bottom of the steamer, causing it to sink. The Corps raised and repaired the *H. G. Wright* following the incident (Wilmington Dispatch, June 3, 1900; Wilmington Messenger, April 7, 1896; USACOE-AR 1896:168).

The Corps had a new hull for the snag boat *Gen. H. G. Wright* completed during 1910. They also added a deck house and new machinery. These improvements kept the snag boat operational for several more years. By December 1922 the hull was once again listed in poor condition and the machinery as fair. The *Wright* continued working on river improvements until 1925, when the new steel snag boat *Fayetteville* replaced it (USACOE-AR 1910:1426; Wilmington News-Dispatch, December 17, 1924).

The government sold the old snag boat *Gen. H. G. Wright* as surplus to the Stone Towing Company and used on the river for a short time. A few years later the towing company placed the *Wright* on a small marine railway at the Stone yard on Eagles Island, where it served as an office and mess hall for the workers. By 1939 the *Wright*, with its machinery intact, was reported as "half-way out of the water across the river at Stone's boat yard" in a decaying condition. When the yard became inactive, the *H. G. Wright* continued to rot and rust (Wilmington News, March 6, 1939).

In April 1987 the Underwater Archaeology Unit (UAU) began planning to remove the machinery from the wreck of the *Gen. H. G. Wright*. On July 22, 1987, the UAU lifted the boiler, both engines, and the stern wheel from the wreck and deposited them on a barge. The UAU removed the machinery to the conservation facilities at the Fort Fisher State Historic Site. Within months the UAU had completed conservation of several parts of machinery. Finally, the UAU reconstructed the engines and stern wheel, made operable by compressed air, and placed them on display at the Cape Fear Museum (UAU Site Files: Carnell 1989).

Blanche (lost 1947)

The tugboat *Blanche* was built at Philadelphia in 1878 with a hull of Swedish charcoal steel. During the launching of the freighter SS *Artemas Ward* from a Wilmington shipyard during World War II, the tugboat *Blanche* was accidently sunk. The *Blanche* was made fast to the port side aft, bow to stern, with the freighter. The line from the tug parted, and the tug surged under the stern of the ship and was struck several times by the turning propeller of the *Artemas Ward*. The master of the *Blanche* swung it to the nearby Pier No. 2, where the crew safely scrambled off the sinking tug. A month after the *Blanche* sank, its owners raised and rebuilt it to a length of 97 feet (North Carolina Shipbuilder, June 1, 1946; Wilmington News, August 23, 1948).

The 94-ton tugboat *Blanche*, owned by the Stone Towing Company, again sank in the Cape Fear River on November 5, 1947. The sinking took place along the east bank of the river, near Big Island, 8 miles below the city. The tug, under the command of Capt. W. R. Williams, was assisting another tug, the *Point Cabrillo*, in moving the SS *Fort Abitibi* to the layup basin near Wilmington. At a turn in the river the *Fort Abitibi* swung wide of the channel and forced the *Blanche* onto its side, filling it with water. The tug settled, with only the bow remaining above the river, in 32 feet of water. Nearly a year later, teh Corps solicitated bids for the raising and removal of the sunken tug. The *Blanche* was nearly seventy years old when it sank for the last time. A photograph of the remains of the tug that appeared in a local newspaper in 1949 is the only evidence known of the removal of the tugboat. The caption to the photograph states that parts of the tug were pulled up. It also gives the dimensions of the vessel as 83 feet in length, with an 18 foot beam. The tug had been renovated shortly before it sank (Wilmington Post, November 5, 1947; Wilmington News, August 23, 1948, February 12, 1949).

Blanchard (lost ca. late 1940s)

Designed by Cox and Stevens of New York and built in 1910 by Pusey and Jones in Wilmington, Delaware, this steel-hulled gasoline-powered yacht was originally known as the *Alacrity*. One of the finest vessels of its day, it measured 120 feet in length and 15 feet 6 inches in beam and a draft of 5 feet. Two 300-horsepower gasoline Winston engines powered the *Blanchard*. On April 28, 1917, the U.S. Navy acquired the yacht under a free lease from John H. Blodgett and placed in commission on May 30, 1917, at Boston. The navy assigned the ship to the First Naval District as a motor patrol boat;

there it operated with a 16-man crew near the Boston and Provincetown areas. Following World War I Blodgett changed the name of the yacht to the *Nedra B*, although additional information on this period is lacking (UAU Site Files).

On August 20, 1942, the *Nedra B.* was commissioned into the Coast Guard Reserve as *CGR 106* in the Chicago area and used for harbor patrol. Later that year it was renamed the USCGC *Blanchard* and reassigned to patrol duty in the waters around Key West, Florida. Shortly after World War II Donald and Buck Bordeaux of Bordeaux Salvage and Construction in Wilmington purchased the vessel from the Coast Guard Auxiliary at Bucksport, South Carolina. Atop its cabin, the *Blanchard* still sported the round pads on which machine guns had been mounted when it was brought to Wilmington. The Bordeaux Salvage and Construction company intended to put the vessel to use in its business but found the hull dangerously thin. The salvage company sold the vessel to Tom Eagleson, a local radio announcer. Eagleson planned to make a houseboat or clubhouse out of the vessel and place it at the site of the old Hamme Marine Railway on the west side of the river. Before the *Blanchard* could be repaired at the nearby Wilmington Iron Works, it sank one stormy night while moored at the Lee and Smith Wholesale Fish Company wharf at the foot of Orange Street (UAU Site Files).

In the early 1980s local divers discovered the wreck of the vessel and reported it to the state Underwater Archaeology Unit. Contract archaeologists again visited the site in 1987 for the U.S. Army Corps of Engineers. According to information provided the archaeologists by Donald Bordeaux and Paul Jennewein, an article by Tom Eagleson mentioned the arrival of the *Blanchard* in Wilmington. Eagleson had located and used in his article a photograph of the *Blanchard*. Bordeaux and Jennewein provided this information to the UAU and suggested this as the likely identification of the sunken vessel at the foot of Orange Street. When last inspected, the ship was located on the western edge of the channel, lying on its port side (UAU Site Files; Tidewater 1988:21-22).

Historic Navigation and Dredging

Although little knowledge exists of the location and depth of the early eighteenth century Cape Fear River channels, some information on the navigability of the river can be gleaned from historic maps. On the Edward Moseley map of 1733 it states that, "the channel shows itself fairly between the Sholes" from the mouth of the Cape Fear River to Brunswick Town. At that time the channel flowed close to Brunswick Town before it divided around a shoal just downstream of the settlement. Here the deeper water, as much as 18 feet, ran near the western shore. The channel then bent to the east to flow around what today is Snow's Marsh, then back close to the western shore. Near the mouth of the river the main channel passed near "Barren Head" (Bald Head) with approximately 4 fathoms depth. A lesser channel flowed past Oak Island to the west of Middle Ground shoal. On the James Wimble map drawn five years later in 1738, the channel followed roughly the same course, although fewer channel depths were indicated. Wilmington sported two anchorages, while another existed near present-day Southport.

Nature played an important role in shaping the Cape Fear River in 1761. On September 20 a "great storm," or hurricane, that lasted four days opened a breach from the Atlantic Ocean to the Cape Fear River across a narrow sand peninsula known as the lower Haul Over. The opening, about 8 miles north of Cape Fear, eventually became known as New Inlet. At first only small vessels could navigate the narrow inlet, but it expanded rapidly and with time rivaled the main channel entrance at the river's mouth. Sand that swept through New Inlet quickly deposited into the main river channel and thus robbed the scouring flow of the current that maintained a natural navigable depth within the river. With the reduced scouring effect sand also accumulated at the mouth of the river decreasing the depth of water over the bar (Wilmington Weekly Star, October 23, 1874).

Vessels that entered the river, either over the main bar or through New Inlet, sailed upstream in the deepest part of the river. The natural channel tended to flow near the western shore as far as Big Island (Campbell Island) just below the mouth of Old Town Creek. Silt deposited within the river near the mouth of Old Town Creek formed a shoal called the "Flats" where the average depth was only 10 feet of water. Vessels drawing more than that depth were compelled to lighter at the Flats at a considerable expense of time and money. The earliest account of the Flats is taken from Governor Dobbs's report to the London Board of Trade in 1762. In primarily describing the river Governor Dobbs referred to the Flats stating:

> The chief river for navigation and trade is Cape Fear river, there being 18 feet of water upon the bar—navigable for large ships above Brunswick, 15 miles up the river, and as high as Wilmington after passing the flatts [sic], upon which there is about 11 or 12 feet of water and is navigable for above 100 miles further up the Northwest branch and above 60 miles

> higher on the Northeast branch, in which a rapid tide flows for near 100 miles (Wilmington Star, June 4, 1874).

Revolutionary War Obstructions

The formation of the Flats was long thought to have been attributable to the placement of a sunken blockade, mostly of derelict vessels, in the river in 1775 by the Wilmington Safety Committee to deter British invasion. The sinking of these vessels across the channel as obstructions at Big Island, along with the accumulation of driftwood brought downstream during freshets, may have contributed to the shoaling, but it appears evident from historical accounts and maps that the Flats existed prior to the placement of the Revolutionary War obstructions (Wilmington Star, June 4, 1874; Wilmington Weekly Star, October 23, 1874; Lee 1965:5; Schaw 1923:279, 282; South Carolina Gazette, June 7, 1740).

On November 20, 1775, the Safety Committee authorized John Forster, William Wilkinson, and John Slingsby to procure any necessary "Vessels Boats and Chains to sink in such part of the Channel as they or any of them may think proper." The threesome placed a value on those vessels or materials purchased for proper reimbursement to the owners (Secretary of State Papers, Committee of Safety 1774-1776).

When the Council of Safety met in Halifax on July 21, 1776, their records contained a list of owners whose vessels were selected with a valuation of the ships. At least seven vessels, belonging to six different owners, were used as obstructions. The sailing apparel of the vessels appears to have been removed prior to their use. The *Alexander*, owned by William Campbell, is the only ship mentioned by name.

> Resolved, That a Copy of the Valuation and Appraisement of sundry Vessels sometime since Sunk to obstruct the Navigation of Cape Fear River be Transmitted to Nicholas Long Esquire. That he apply to the Committee of Wilmington for the Inventories therein mentioned, and take into his possession the Masts, Yards, Sails, Rigging, Cables, Anchors, and other Apparel to the said Vessels belonging, and deposit them in the Care of one or more trusty person or persons there to remain subject to the further Orders of the Council or Congress and that he transmit an Account of his doing herein and an Inventory of the Various Articles, and with whom Lodged to this Board.
>
> And Whereas the Council are informed That a certain William Campbell late owner of the Ship *Alexander* A Vessel sunk for the purpose above mentioned refuses to deliver up the Sails &ca to her belonging, detaining them until he shall be allowed for sundry Materials prepared for the repair of the said Ship *Alexander*; Resolved that Nicholas Long, call on said William Campbell for delivery of the Sails and other Articles

> aforesaid, and on his refusal to deliver them summon sufficient Aid and take them by force, and proceed to take care of them as above directed.
>
> Resolved, also, That the Committee of Wilmington, be and they are hereby directed to appoint five indifferent persons, to value and appraise the Materials prepared for the repairs of the Ship *Alexander*, lately belonging to William Campbell, the said Campbell first deposing on Oath that they were actually prepared for that purpose and render an Inventory and Appraisement thereof to next Congress that they determine of said Campbell's Claim for the said Materials (Clark, State Records Vol. 10, pp. 704-705).

William Campbell was born in 1745 in Augusta County, Virginia, and served as a general during the Revolutionary War. Campbell saw action in the Carolina Campaign at Kings Mountain and Guilford Courthouse. He was the brother-in-law of Patrick Henry. William Campbell died August 22, 1781, at Rocky Mills, Hanover County, Virginia. Campbell Island would later be named for him (Powell, 1976:83). The records for Port Brunswick during the 1760s and 1770s indicate that William Campbell was also the owner of a ship known as the *Friendship*. That vessel, listed as built in Massachusetts Bay in 1764 and registered at Brunswick in 1773, may have been one of Campbell's other "Vessels sunk in Cape Fear River" used for the obstructions.

Including Campbell's vessels, the Secretary of State Papers list the following owners of vessels probably used in the blockade:

Samuel Willis	Vessel sunk in Cape Fear River
James Walker	Vessel sunk in Cape Fear River
Harrel? Blackmore	Brigg sunk in Cape Fear River
Cuth? Wando	Brigg sunk in Cape Fear River
James Donovan	Schooner sunk in Cape Fear River
William Campbell	Vessels sunk in Cape Fear River (*Alexander*)

(Secretary of State Papers, Journal of the North Carolina Council of Safety).

On December 12, 1777, the Senate Journal indicated that vessels sunk in the Cape Fear River were to be sold. Although it does not specifically refer to them as the vessels used as obstructions, these may indeed be the same ships.

> Mr Speaker and Gentlemen of the House of Commons: We have received and herewith return two resolves of your house, . . . the other impowering Thomas Benbury and William Hooper, Esquires to sell the vessels sunk in Cape Fear, with which this House concurs (Clark, State Records, Vol. 12, p. 199).

When Joshua Potts made a map of the lower Cape Fear river in 1797, he indicated a river depth of 10 feet at the approximate location of the Flats. He made, however, no specific mention of the Flats or obstructions, but in a commercial report in 1815 he did refer to the Flats. By the 1820s the state had employed an engineer to oversee the removal of the "remaining obstructions at the Flats below Wilmington, and in removing other obstructions at the mouths of our Rivers" (East Florida Herald, March 7, 1825).

As late as 1827, vessels sunk in the Cape Fear River at the Flats during the Revolutionary War continued to pose obstacles to navigation. Wrecks at the Flats located near the mouth of Town Creek, possibly some of those used as obstructions, still required removal.

> Flats below Wilmington - In reply to a call by the Committee of Commerce, of the Senate, for information relative to a survey of the Cape Fear River, Gen. Macomb, Chief Engineer, states that Capt. Bache, of the Topographical Engineers, is now engaged on that duty, which he is expected to perform before the close of the present year; . . . and also, for removing the vessels which were sunk during the Revolutionary War, and which now impede the navigation of the Cape Fear River (Fayetteville Carolina Observer, March 1, 1827).

The Flats continued to hamper the navigation of ships using the river until the sunken vessels used to obstruct the channel were eventually all removed several years later. Historical accounts often referred to ships grounded on the continuously shifting Flats. An act was passed as early as 1784 to improve rivers and creeks and to prevent obstructions to navigation (Weaver 1903:49). The Commissioners of Revenue authorized James Read in 1795 to receive proposals for staking out a navigable channel in the Cape Fear River. Only eight stakes appear to have been required along this section of river. Their locations are specified below:

> Two stakes to be fixed on the points of the shoal below five fathom hole, called the Narrows.
> One stake, at McNight's shoal, which is opposite Sturgeon Point.
> One stake at Nutt's shoal.
> Two stakes at the Flats opposite Old Town.
> One stake below Reedy Point, on the west side.
> One stake on the east side opposite the Chevaux-de-frize.

Each stake was to be "three feet clear above high water mark, in common spring tides, and to be of good sound light wood, six inches square, except the two to be fixed at the Narrows below five fathom hole, which are to be round pine poles, with the bark on. The stakes and poles aforesaid to be securely fixed and kept up for the whole of the year 1796 . . ." (Wilmington Chronicle and North Carolina Weekly Advertiser, October 22, 1795). In 1798 the Commissioners of Revenue authorized a general survey of the harbor, outlet, and channel that did not show any great improvement (except in the Big Island channel) (Wilmington Weekly Star, October 23, 1874).

After 1800 it became apparent that continual shoaling and natural river obstructions threatened the usefulness of Wilmington harbor. Often these obstructions prevented ships from successfully navigating the river. In 1816 the newly formed North Carolina Board of Internal Improvements appointed a committee of Wilmington men to take measures to improve the Cape Fear River below Wilmington. One of their early efforts that met with limited success on the river above Wilmington was the Cape Fear Navigation Company. The efforts of the company in 1816 to remove obstructions commenced "with great vigor" after the hiring of James Abernathy, a skillful engineer, to arrange and direct the proposed improvements. The company collected tolls from vessels for use toward the improvements, but the poor condition of the river maintained by the company proved unsatisfactory to the local citizens. Although the Cape Fear Navigation Company was unable to meet the great task they faced, their efforts may have contributed to the arrival of the first steamboats on the Cape Fear—the *Prometheus* in 1817 and the *Henrietta* in 1818 (Fayetteville Carolina Observer, August 22, September 16, 1816; Weaver 1903:30; Hartzer 1984;11).

State Improvements 1819 -1829

The State of North Carolina took up the navigation improvements upon the failure of the private attempt, but it too soon met with little or no success. About 1819 the local Board of Internal Improvement hired Hamilton Fulton, an English civil engineer, to direct improvements to the river below Wilmington. The first detailed survey of the river was done in 1821, but it was not until 1823 that the Board of Internal Improvement approved a plan submitted by Fulton for improvement of the channel between New Inlet and Wilmington and the removal of the Flats. Before the works commenced, vessels drawing more than 8 feet of water could not cross the Flats at half tide. Fulton's plan also called for the construction of dikes or embankments to close minor channels, jetty contraction of the main channel, and dredging across the shoals. Beginning in May 1823 Fulton's crews commenced construction on two embankments and one jetty. One embankment closed the passage between Clark's and Eagles Islands. The structure sufficiently stopped the flow of the river to the west side of Clark's Island, and eventually the two islands joined. Early in October 1823 Fulton's contractors built a jetty beginning on the western bank that extended 2,000 feet into the river (Carolina Observer and Fayetteville Gazette, February 13, 20, March 20, August 7, 1823; Sprunt 1992:145; Hartzer 1984;12-13; USACOE-AR 1886:1005).

On February 20, 1823, the Carolina Observer and Fayetteville Gazette printed a detailed description for the improvement of the embankments and jetties. The full text is shown below:

> *Specification for the Embankments*
> The Embankments between Clark's Island and Eagle Island, and betwee[n] Campbell's Island and the western bank of the river, are to consist of two rows of piles, with a clear width of ten feet between the two rows; in each row the piles are to be made out of good pine timber, of

such size as will square to 12 inches; they are to be hewn on the two meeting sides, so as to present a flat surface to each other of at least 10 inches wide on an average. They are to be driven quite close together, as far into the bed of the river as it is possible to drive them with a pile driving machine having a rammer of from 12 to 15 cwt. and falling from a height of 25 feet at least, and when driven thus far, the piles are to be of such length as to leave 5 feet at least, above the ordinary height of high water mark of spring tides.

2. On the outside of each row of piles there is to be a string piece of pine timber of 9 inches square, fixed about 2½ feet from the top of the piles, and to run horizontally for the whole length of the embankment. Opposite the centre of each pile there is to be an auger hole of 1 ½ inches in diameter bored through the string piece and pile, and a white oak trenail of sufficient size driven quite through them both. The different pieces of timber used in the string pieces are to be joined by a scarf overlapping 18 inches at least.

3. In every 10 feet of length in the embankment, there is to be a cross piece sufficient in length to extend from outside to outside of the string pieces, and to project therefrom at least 12 inches at each end; these cross pieces or braces are to be of timber that will square 12 inches, and to be notched 6 inches deep, so as to embrace the heads of the piles upon which they rest, and the outside string pieces. Immediately on the upper side of these cross pieces is to be laid a string piece of 9 inches square, along the inside of both rows of piles for the whole length of the embankment, and to be fastened to the head of each pile by a trenail as described for the outside string pieces.

4. The whole of the space on the inside of the piling is to be filled up with earth flush to the underside of the cross pieces, and in executing this part of the work, the contractor is to carefully arrange the soil, so as that part of it which is of a vegetable consistency may be put nearest the piles on both sides; the intermediate space may be filled up with such soil as can be conveniently obtained.

Specification for the Jetties

5. The Jetties are to consist of a single row of piles of 9 inches square, driven firmly into the bed of the river, at the distance of 10 feet from each other. Each of these piles is to have a tenon at the top of three inches thick, 10 inches wide and 6 inches long. On the top of these piles is to be placed a capsill, 10 inches square, with mortices on the under side for the reception of the tenons on the piles, there is to be a trenail of sufficient size to fill an augur hole one and a half inches in diameter, to be driven through the capsill and tenon; the upper side of this is to be on a level with the ordinary height of high water of spring tides.

> 6. Between each of the square piles, the place is to be filled up with two inch thick pine plank piling, driven firmly into the soil, and spiked by two spikes of 5 inches long, into the capsill

The second embankment connected Campbell Island with the western bank. At first that embankment made a dramatic increase in the depth of the main channel. The wooden structure, however, collapsed in 1826, and the channel again filled with sediment that reduced the depth from 19 feet to 3½ feet. Removal of the Flats in the vicinity of Campbell Island presented Fulton with a different challenge. In 1823 Fulton had built an iron and wood clearing device he called a "bear." A steamboat dragged the device across the shoals with the intended purpose of stirring up the sand and mud so that the current would carry it away. The "bear" proved to be ineffectual and was soon abandoned. Fulton, under approval of the Board of Internal Improvements, later contracted in New York for the use of a dredging machine to be used in removing the shoals (East Florida Herald, March 7, 1825; Fayetteville Carolina Observer, March 26, 1826). The small dredging machine, attached to a low-pressure eight-horsepower engine, was mounted in a schooner and used for a short time. The vessel proved too small for the task, and Fulton removed the dredge machine. Regardless of the drawbacks, by August 1823 the Board reported that the improvements to the Cape Fear River had already made a "sensible effect" (Carolina Observer and Fayetteville Gazette, February 13, 20, March 20, August 7, 1823; Hartzer 1984;12-13).

The following letter written by Capt. William Dougall in 1823, and published in a local newspaper, illustrates the temporary effect that the improvement at the Flats accomplished:

> The Schooner *Chart*, which I command, passed the Bulkhead or Upper Flats, on Sunday, the 20th inst. at 5 p.m. which I suppose about half flood, drawing 10 feet 8 inches water, and I strongly believe that there was fully 12 feet at high water on the Bulkhead (Carolina Observer and Fayetteville Gazette, August 7, 1823).

Fulton continued to make limited progress on improvements to the channel until 1825 when the state terminated his service. Congress appropriated only one thousand dollars on May 20, 1826, to be used to conduct river and harbor surveys at several areas in the state. The Cape Fear River was one of the designated areas. In September 1826 Maj. Gen. Alexander Macomb, chief of engineers, authorized Capt. Hartman Bache of the Topographical Engineers to complete the authorized surveys. Although his crew often suffered from illness, Bache made the surveys throughout 1827. As a result of his findings, Congress gave approval to undertake improvements at several areas within the state, including the Cape Fear. Bache submitted an improvements project to deepen the channel through the shoals below Wilmington by constructing additional jetties. At a careful pace Bache added jetties that resulted in a gain of 2 feet in the available channel depth. The largest draft vessel then engaged on the Cape Fear had a draft of 12 feet. In order to accommodate slightly larger vessels, the shoals still required dredging. Bache recommended using a steam dredging machine similar to the one previously used by the state. According to his estimates, a channel 12 feet deep at average high water and 500 feet wide through the shoals below Wilmington would require 2½ years to dredge. Congress found the figures submitted with his survey report reasonable and on March 2, 1829, appropriated $20,000 for the improvement of the Cape Fear River below Wilmington (Fayetteville Carolina Observer, March 1, 1827; Wilmington Star, July 20, 1907; Hartzer 1984:13, 16).

Federal Improvements, 1829 - 1853

The improvements for the Cape Fear River below Wilmington came under Federal supervision in 1829. At that time the river had three bar entrances with minimum depths of about 9 feet at Baldhead channel, 9 feet at the Rip channel, and 10 feet at New Inlet. Several shoals still existed from the mouth of the river up to Wilmington that averaged only a 7.5 foot depth at low water. The government continued trying to improve the navigation of the river but initially met with no better success than the state. Supervision of the improvements on the Cape Fear went to Capt. George Blaney, Corps of Engineers. Captain Blaney began to build additional jetties in January 1830. By August four jetties had been completed and a fifth neared completion when a gale struck. The storm destroyed a series of jetties built south of Federal Point and drove the state's dredging boat on loan to the Corps into the marsh. The Corps hauled the dredge boat from the marsh and returned it to work on the river until November. The following year the Corps put a new larger dredge boat into service (Wilmington Weekly Star, October 23, 1874, August 12, 1887; Wilmington Star, February 13, 1886; Wilmington Star-News, November 18, 1984; Hartzer 1984:16).

The wooden jetties constructed by Blaney were in constant need of repair, and requests for proposals for repair work were continually issued. One request indicated the need for "3,000 piles varying in length from twenty to forty feet. The piles to be of pine timber, and squared on two opposite sides, so that the distance from face to face shall be twelve inches" (Peoples Press and Wilmington Advertiser, June 24, 1835; Wilmington Advertiser, July 27, 1838). In 1834 the Corps placed stone on either side of the jetties in hopes that it would prevent deterioration from the currents. After the death of Major Blaney in 1835, Lt. Alexander J. Swift, the son of Brig. Gen. Joseph Gardner Swift, replaced him the following year. For the next several years Lieutenant Swift carried on the federal improvements, completing six jetties by 1839. When Captain Bache made his report in 1827, he stated that vessels drawing only 9 feet or less could reach Wilmington. By 1839 the depth had increased to 11 feet, still short of the desired depth of 14 feet. The depth at the mouth of the river continued to steadily decrease because of sediment accumulation. Between 1839 and 1841, the Corps of Engineers transferred all the river and harbor work in North Carolina to the newly formed Corps of Topographical Engineers under the supervision of Capt. John McClellan. Few improvements were made to the Cape Fear River under the Topographical Engineers during that period. The engineers did no additional work on improving the navigation of the Cape Fear until 1853. Ten years later the Corps of Topographical Engineers merged with the Corps of Engineers (Hartzer 1984:15-17; Wilmington Star-News, November 18, 1984).

Cape Fear Entrance Improvements, 1853 - 1861

The project of 1853, under Capt. Daniel P. Woodbury, called for deepening the water at the main entrance by constructing jetties at Baldhead Point and a jetty between Smith's Island and Zeke's Island near New Inlet. Woodbury also raised the possibility of closing New Inlet. In 1853 Secretary of War Jefferson Davis appointed a commission to report on the conditions of the Cape Fear River. In their report the commission found "that a harbor which once afforded easy access to vessels drawing nineteen feet of water will now admit only those with less than thirteen." The commission recommended four stages of operations to be undertaken to restore the 20-foot depth over the bar. First, further erosion of Bald Head had to be prevented by means of jetties and sand fences. That stage was to be immediately followed by closing two small openings south of New Inlet, and finally the commission recommended a jetty from Zeke's Island and the complete closure of New Inlet (Hartzer 1984:17-18; Wilmington Star, February 13, 1886; Wilmington Dispatch, November 7, 1907; Wilmington Star-News, November 18, 1984).

Brig. Gen. Joseph G. Totten, chief of engineers, approved all of the commission's proposals except for the complete closure of New Inlet. Commission members Captain Woodbury, Corps of Engineers, and Alexander Bache of the Coast Survey had recommended that the closure of the inlet be implemented, but Totten refused. During 1853 Captain Woodbury and his crew built two stone jetties on Bald Head perpendicular to the outer beach. One of the jetties had been used to close the northernmost of the small inlets by the summer of 1854. Later that year the two inlets joined and became one with a width of 2,300 feet. Three times in the 1850s the Corps rebuilt the two jetties at Bald Head Island after they were destroyed by storms. These works, however, succeeded in only temporarily deepening the water on the main bar entrances by several feet. A new commission recommended in 1857 that the old works at Zeke's Island destroyed by the storm that year be rebuilt and that if the depth at the river's main entrance did not increase within three years, then New Inlet should be closed (Wilmington Star, February 13, 1886; Wilmington Dispatch, November 7, 1907; Wilmington Star-News, November 18, 1984; Hartzer 1984:19).

Prior to 1853 no work had been attempted to improve the depth at the Cape Fear River entrance. Considerable shoaling had occurred over the years that posed navigational hazards to approaching ships. The project that began in 1853 proposed to straighten and deepen the bar channel by dredging, jettying, and increasing the flow. The latter was to be accomplished by closing New Inlet and the breaches in Zeke's Island. It was known that as the depth increased at New Inlet, sediment accumulation correspondingly decreased the depth at the river's mouth. The efforts to deepen the water over the bar were further complicated by the fact that the Cape Fear discharged into the ocean at its original mouth through two channels separated by a middle ground. The main, or eastern channel, passed near Bald Head, while the western channel ran near Oak Island. Bald Head had eroded nearly three-quarters of a mile between 1761 and 1853, contributing to the shoaling problem. When work began on the bar in 1853 the depths at low water were 7½ feet in Bald Head channel, 7 feet in the Western or Rip channel, and 8 feet at New Inlet. When the Coast Survey examined the entrance depths in 1858, they found that the temporary jetties at New Inlet had only maintained the same channel depths as in 1853. Improvements on the river ceased in 1861, and the engineers undertook no further work on the Cape Fear until after the Civil War (Wilmington Weekly Star, October 23, 1874; Wilmington Dispatch, November 7, 1907; Hartzer 1984:17-18; Rayburn 1984:1).

Closing of New Inlet (The Rocks), 1870 - 1881

The Corps of Engineers made a postwar survey of the Cape Fear River in 1870 under Gen. J. H. Simpson. The results of Simpson's survey supported the closing of New Inlet prior to any dredging in the river, since sand washed in from the inlet would quickly refill the channel. It was also determined that a large portion of the old works built by Captain Woodbury between 1854 and 1856 still existed and could be utilized. The River Improvements Act of July 11, 1870, appropriated funds for the Cape Fear improvements. General Simpson and Colonel Craighill of the U.S. Engineers devised a work at the New Inlet breaches to intercept the sand being washed into the river by the northeasterly gales and to then prevent the spilling of vast volumes of water through the breaches. The works were intended to close the small inlets contiguous to the main inlet, thus forcing the water into the main channel and scouring the channel to a capacity to admit vessels. The first step undertaken to close the inlet was the erection of a 500-foot deflector jetty from Federal Point on the northern side of New Inlet, that followed a southwesterly line of shoals. The work of closing the breaches between Smith and Zeke's Islands, was under the supervision of Maj. Walter Griswold and consisted of placing large, heavy wooden cribs, filled with stone, across the bottom. The line of crib works started at the northernmost extremity of Smith Island and extended toward Zeke's Island. For the greater part of its 1,200 feet length, the works were built upon the remains of the stone dike constructed by Captain Woodbury. At the commencement of the work the water on the bar had diminished to the nominal depth of only 8 feet with a narrow channel (Rayburn 1984:3; Hartzer 1984:34-35; USACOE-AR 1870:422; Wilmington Weekly Star, May 17, 1872; Wilmington Star, January 26, 1873).

During the 1870-1871 fiscal year the Corps of Engineers reported that a 607-foot section of the breakwater and superstructure had been completed across the most difficult breach that contained the deepest and strongest current. In addition to the construction of the breakwater, Griswold also began erecting sand fences and planting shrubbery and other vegetation on Zeke's Island to prevent further erosion (Rayburn 1984:3; USACOE-AR 1871 2:75; Wilmington Star, February 13, 1886). In 1873 the Corps reported that the closing of the breaches between Zeke's and Smith's Islands had been completed. The jetty extended 4,400 feet in length and was protected from the currents by sunken flats and thirty thousand sand bags. Upon inspection it was found that sand had quickly accumulated, forming shoals around the jetty and further strengthening the structure. As a result of the building sand at the breakwater and sand fences, Zeke's Island was being thoroughly merged into Smith's Island beach and returning to its former shape before the 1761 storm. Federal Point, however, and the outer point of Smith Island beach continued to wear. By 1877 Zeke's Island had entirely lost its identity. Bald Head channel had lost about one foot of depth, and the outlet moved slightly westward (Rayburn 1984:4; Wilmington Star, February 8, 1877).

In 1872 the Corps made a proposal to completely close New Inlet, and a board of engineers met in Wilmington to consider the idea. After careful review the board recommended closure of the inlet. Congress appropriated an additional one hundred thousand dollars for the continued task. Work began on completely closing New Inlet in 1874 by placing an experimental cribwork along a line of shoals 1,700 feet long to the deep water of the channel. The cribwork consisted of a continuous line, or apron, of wooden mattresses—composed of logs and brushwood, loaded with stone, and sunk—that formed the foundation for a stone dam. Each section of the mattress was 36 feet wide and 36 feet long and was floated out to its proper position and held in place by anchors. Having proceeded at a cautious pace, the Corps of Engineers halted the construction after two years of difficult work and the construction of only 500 feet for further consideration. While reevaluation of the project was under way, it was decided to use any remaining funds to dredge the channels of the river at Horseshoe shoal, the Bald Head bar, and the "Logs," a submerged cypress stand 7 miles below Wilmington to a depth of 12 feet (Rayburn 1984:3-4; Hartzer 1984:35; Sprunt 1896:109-111).

When work on closing New Inlet continued in 1876 the project proved difficult because of the depth of the water and the amount of stone required to be piled on top of the wooden mattresses. The last mattress raft was sunk in June 1876, and it was estimated that 6,200 cubic yards of riprap stone would be required to be placed on the mattresses just to raise the dam to the low water mark. The first load of stone was dumped on the dam in January 1877. The work continued from year to year by piling small stone riprap on and over the foundation. As the dam lengthened, the amount of riprap needed increased as the current scoured the mud and sand from around the dam, increasing the depth of water. By 1879, under direction of Asst. Eng. Henry Bacon, the dam had been built to the high water mark for its entire length of 5,300 feet; and one small middle section that had been left open for navigation was closed. More than 122,000 cubic yards of stone had been placed on the dam, and still more was needed to raise the dam to two feet above the high water. At the suggestion of Bacon to Chief Engineer Craighill, heavy granite capstones were placed on top of the rock dam. The Corps successfully completed the closure of New Inlet in 1881 (Sprunt 1896:109-111; Hartzer 1984:35; Rayburn 1984:5; Wilmington Star, March 29, 1876; Wilmington Star, June 3, 1876).

Swash Defense Dam, 1881 - 1891

While the Corps of Engineers was engaged in the closing of New Inlet, a storm in 1877 opened a breach between New Inlet and the closed Smith's-Zeke's Islands swash. In order to prevent the purpose of the dam from being corrupted by the new opening, it was decided to close the breach by artificial means. The first attempt, made by Engineer Bacon in February 1881, proved to be of insufficient strength and collapsed. A second attempt to build a sturdier structure followed during the spring and summer of 1881. During that effort over "400 heavy piles eight feet apart in two lines nine feet apart" were driven in a line across the breach. Sand quickly accumulated on the ocean side of the defense, reinforcing the structure. A series of storms in August and September 1881, however, broke through the beach on the north side of the breakwater, flanking the defense and forcing its abandonment. In order to save the work, Bacon recommended that a line of defense be completed that extended from Zeke's Island over the shoal water to reduce the tidal difference (Hartzer 1984:37).

The Corps approved Bacon's recommendations for the extended defense; without them the effectiveness of the New Inlet dam would have been severely compromised and a great deal of money and time expended with little more than a temporary improvement. A row of mattresses, 40 to 60 feet wide, was laid along the line earlier proposed. On top of the mattresses they piled stone, similar to the New Inlet dam, up to the high-water mark. Storms again plagued the defense project and forced another swash to open just north of the other two and nearer New Inlet Dam. As a result, Bacon was forced to lengthen and modify the line of mattresses. Contractors finally delivered the first load of stone to the works in December 1884 from a quarry on nearby Gander Hall plantation. The placement of the stone continued over the next several years, with minor delays caused by the occasional storm. By 1891 the Corps had completed the 12,800-foot Swash Defense Dam to its proper height and width (Hartzer 1984:37-38; Rayburn 1985:1).

The length of the upper section of the dam extended from Battery Buchanan on Federal Point to Zeke's Island, a distance of 5,300 feet. The continuation of the Swash defense dam from Zeke's Island to Smith's Island, 12,800 feet, made the entire closure just over 3 miles in length. The "Rocks," as the entire dam was eventually called, measured from 90 to 120 feet wide at the base, and for three-fourths of the line the average depth of the stone wall was 30 feet from the top of the dam. The Corps of Engineers topped the Rocks with concrete during the 1930s. The Rocks still separate the Cape Fear River from the ocean (Sprunt 1896:109-111; Hartzer 1984:35; Rayburn 1984:5).

Civil War Obstructions

A major task faced by the Corps in improving navigation of the Cape Fear River after the Civil War was the removal of obstructions intentionally placed by the Confederates to block the channel. The Confederates commonly used two types of sunken obstructions, called "Yankee Catchers." The first type consisted of rows of grillage, or triangluar-shaped wooden frames, loaded with stone and anchored in position in the river. Ten-by-ten-inch timbers pointed downstream at a forty-five-degree angle from the wooden structure just below the surface of the water. As enemy ships crossed the hazard, the timbers would hinge to a vertical position and puncture the bottom of the vessel **(Figure 33)**.

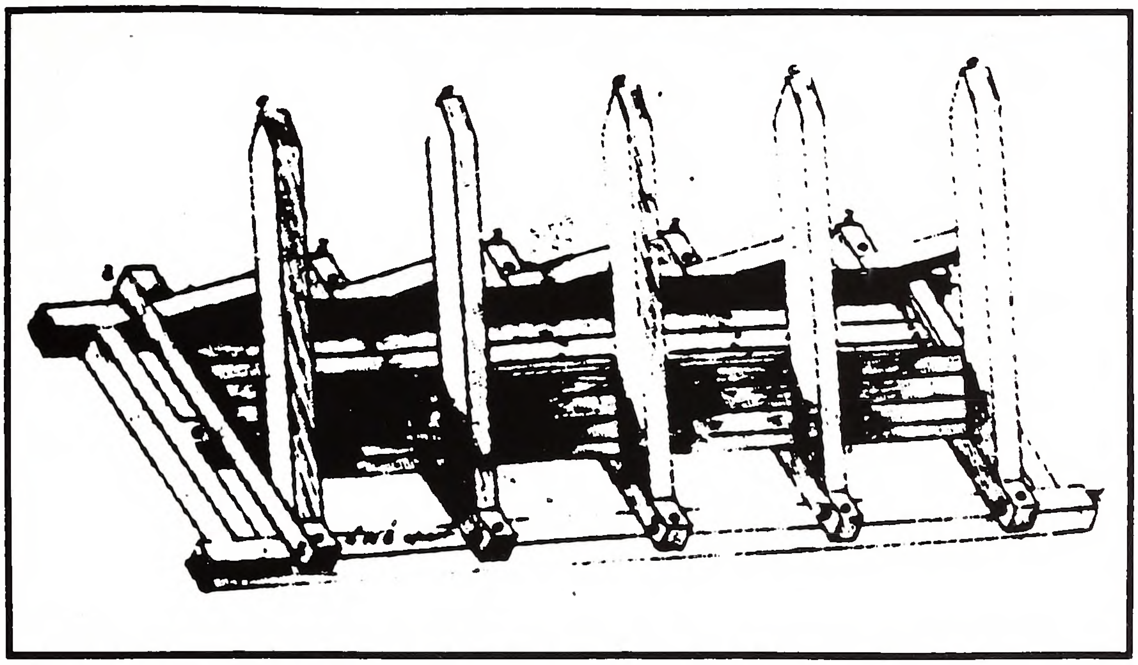


Figure 33. Civil War River Obstruction.

The Corps of Engineers made arrangements for removing the obstructions that still remained at several locations within the river by 1873; however, work did not commence until 1875. The Corps removed these hazards in July and August by breaking off the pointed timbers. Railroad irons arranged in an X and sharply pointed on the ends comprised the second type of obstruction. A local newspaper reported in August that "the obstructions which were placed . . . during the late war have all been removed and there is now no hinderance to navigation in that quarter" (Wilmington Star, December 20, 1873, August 31, 1875; Rayburn 1984:4; Hartzer 1984:33-34).

At several locations along the Cape Fear River Confederates placed obstructions to destroy Union vessels, prevent them from entering the river, or to protect their own defenses. The defenders used a variety of obstruction types, as well as sunken vessels, to block the channel at six or more locations.

New Inlet

Lieutenant Braine, commander of the USS *Monticello*, which was stationed off Wilmington, North Carolina, in early 1862, reported the placement of stone-filled, wooden cribs by the rebels to obstruct New Inlet:

> [Kent Newton who] has worked for several years on the ferryboats that cross the river at Wilmington . . . states about the middle of December [1861] the rebels towed down by steamer *Uncle Ben* four large, heavy wooden cribs, diamond shape, about 40 or 50 feet wide and 12 feet deep, which they moored on the shoal and in the channel way close together at the northwestern end of Zeek's Island, and filling three of them, as he

> saw, with rocks, sunk them and completely blocked the channel of New Inlet at that point, and the fourth one they said was to be sunk alongside (ORN, I, 6:499).

Newton's report seemed to be confirmed by Lieutenant Braine who stated that a small steam tug that had once traveled beyond "Zeek's Island" to the east was now apparently prevented from doing so:

> Now that we are aware of the fact that these cribs have been sunk in the channel at Zeek's Island, I know that it is an impossibility for her to pass, or any other vessel drawing 9 feet of water (ORN, I, 6:499).

Lt. Francis Bunce of the USS *Penobscot* reported in June 1862 additional obstructions placed by the Confederate forces within the Cape Fear River at New Inlet. In his report to Commander Braine, the lieutenant described the number, type, and design of the obstructions:

> From the contraband . . . I have learned the construction of the obstructions in Cape Fear River and New Inlet. They consist of 25 pens constructed of heavy timber, mortised and tenoned, filled with stone and sunk on Horseshoe Shoal, in New Inlet, to the westward of Zeek's Island, and one brig filled with stone and sunk in the same place (ORN I, 7:493).

Fort Caswell

Off Fort Caswell another type of obstruction consisted of sunken vessels and rafts. On February 14, 1862, Comdr. O. S. Glisson of the USS *Mount Vernon* witnessed the placement of sunken vessels as obstructions by the Confederates near Fort Caswell. He stated that two rebel steamers, having one schooner and lighters in tow, "came down to the inner bar, and when abreast of Fort Caswell and about 100 yards distance from the shore, they sunk two of the lighters and threw overboard a quantity of heavy articles from the others, with the evident view of obstructing the channel." Commander Glisson then ordered the USS *Mount Vernon* to fire on the steamers over 2 miles in distance. The steamers fled upriver with the schooner and remaining lighters in tow, after only partially completing their objective (ORN I, 6:646).

A map produced for Union Gen. Q. A. Gillmore in September 1864 shows a line of obstructions extending northeast across the main channel at Fort Caswell. In describing the Fort Caswell obstructions in June 1862, Lieutenant Bunce reported that "the obstructions in Cape Fear River consist of two rafts, each 700 feet in length, anchored off Fort Caswell, at the rips, bearing southeast from the fort across the channel." Whether the obstructions were southeast of the fort according to Bunce, or northeast of the fort as shown by Gillmore, or at both locations, has not been confirmed (ORN I, 7:493; ORA I, 42:732; USACOE, 1864).

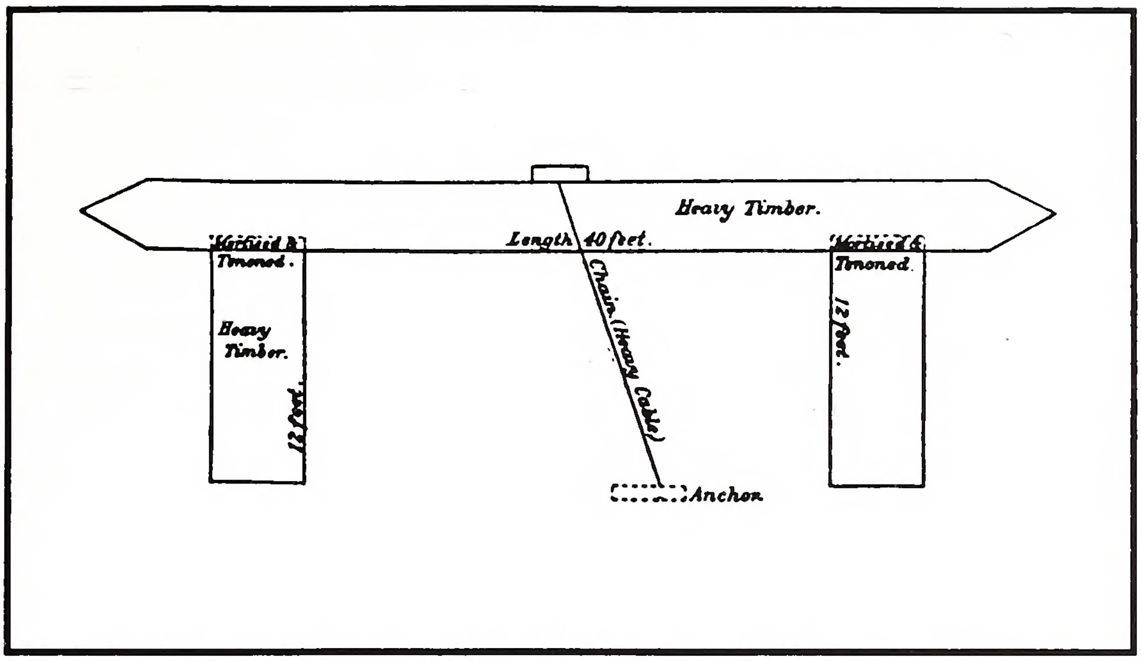


Figure 34. Civil War River Raft Obstruction.

The above diagram **(Figure 34)** provided by Lieutenant Bunce in his report represents one section of each raft. Twenty feet separated each section, and the sections were connected by heavy mortise and tenoned timbers. The pointed ends were aligned up and down the channel. A very heavy chain ran across the middle of each raft, then anchored at each end and amidship. Chains located in midchannel connected the two rafts. At high water the complete rafts, or a portion, were afloat (ORN I, 7:493).

Old Brunswick

In June 1864 Lt. William Cushing, U.S. Navy, reported that "The river is also obstructed by spiles at Old Brunswick, and there is a very heavy earthwork there." The earthwork referred to by Lieutenant Cushing was of course, Fort Anderson. In February 1865, not long after the fall of Fort Anderson, Assistant Surgeon Stephen C. Bartlett aboard the USS *Lenapee* wrote home stating that the men on his ship helped remove the ob structions and about thirty torpedos from near the fort (ORN I, 10:202; Murray and Bartlett 1956:78).

Clark's Island

In 1865 Confederate Gen. Braxton Bragg submitted a detailed map of the obstructions and defenses below Wilmington at Clark's Island and at the mouth of the Brunswick River. A similar map was later prepared under the direction of Capt. William James for the Union forces. General Bragg's map shows the location of floating chain obstructions across the main channel of the Cape Fear River from the north end of Clark's Island to the shallow water in front of Fort Lee on the eastern shore. The floating chain obstructions ended in front of the fort before reaching a floating gate. On the upstream side of the floating chain obstructions, near the northern end of Clark's Island, the wreck of the blockade-runner *North Heath* formed a part of the obstructions (CSAE 1865b).

On the Bragg map, approximately 1,200 yards below the floating chain, the wrecks of the screw steamers *Arctic* and *Yadkin* are shown as part of the obstructions opposite Fort Campbell between two lines of sawyers and Chevaux-de-frise. An additional line of sawyers is shown parallel to the current below the south end of Clark's Island. Lieutenant Cushing's report in June 1864 described the obstructions 3 miles below the city as "consisting of iron-pointed spiles, driven in at an angle." A short distance nearer the city, located at a ten-gun navy battery, another line of obstructions consisted of "diamond-shaped crates filled, and supported in position by two rows of spiles." The Confederate obstructions in front of Fort Campbell were removed by the U.S. Engineer Department in 1875 (ORN I, 10:202; CSAE 1865b; USACOE 1876b).

Assistant Surgeon Stephen Bartlett again commented in a letter on the river obstructions after moving upriver from Fort Anderson: "Soon we came to a line of stakes and saw we have arrived at the second line of obstructions with the channel blocked by a Blockade Runner [*North Heath*] sunk." Bartlett also referred to a second sunken blockade-runner, possibly in reference to one of the screw steamers. In 1875 the *Yadkin* and the *Arctic* were removed as navigational hazards. The *North Heath* was partially removed in December 1869 and entirely removed years later in 1932 (Wilmington Star, December 7, 1869, December 13, 1932; Wilmington Journal, January 31, June 13, 1866; Murray and Bartlett 1956:78-79; CSAE 1865b; USACOE 1876b).

Mouth of Brunswick River

At the mouth of the Brunswick River rows of "Sawyers," "Round Piling," and "Square Piling 12 x 12" blocked the entrance. A U.S. Army Corps of Engineers map from 1876 indicates that the line of obstructions sunk by the Confederates was "bare at low water." On June 13, 1902, a River and Harbor's Act appropriated an expenditure not exceeding $1,000 for the improvement of Cape Fear River at and below Wilmington and for removing Civil War obstructions at the mouth of the Brunswick River (Wilmington Messenger, October 9, 1902; Sprunt 1992:13; CSAE 1865b; USACOE 1876b).

Wilmington

Above the city an additional row of obstructions and another battery completed the defences. In April 1865 Union forces removed some obstructions and torpedoes from the river, but it was several years before all the hazards were completely removed. In 1875 work again commenced to eliminate the two types of obstructions, or Yankee Catchers, that still remained. The Corps of Engineers removed the hazards in July and August 1875 by breaking off the pointed timbers. The local paper reported in August that "the obstructions which were placed . . . during the late war have all been removed" (Wilmington Star, December 20, 1873, August 31, 1875; Rayburn 1984:4; Hartzer 1984:33-34; ORN I, 10:202; Murray and Bartlett 1956:83).

River Channel Improvements, (1873- 1891)
While construction on New Inlet dam was under way, the Corps of Engineers also continued to maintain a navigable river channel. The Corps had at first proposed to dredge wherever necessary across the river shoals to secure a 12-foot channel, 200 feet wide; later the project was expanded to maintain a 16-foot channel, 270 feet wide, at low water. The latter depth, partially achieved by 1874, combined with the average rise of tide on the bar (4½ feet) and at Wilmington (2½ feet) provided a good 18-foot navigation at high water from the ocean to Wilmington (Wilmington Star, February 13, 1886, July 30, 1947; Wilmington Dispatch, November 7, 1907). The section of river most difficult to maintain at 16 feet was at Horseshoe Shoal, opposite New Inlet, where the channel made a broad curve around Snow's Marsh. After the Corps closed the inlet, however, the increased river current began to rapidly scour the eastern side of Horseshoe Shoal and the sharp bends of the channel in that locality, thereby straightening it. Contractors for the Corps began in September 1874 dredging a new channel west of Horseshoe Shoal to 100 feet wide and 9 feet deep. The new channel avoided much of the circuitous Horseshoe channel and considerably shortened and straightened the main route. Within two years the Corps had increased the width of the channel to 190 feet and the depth to nearly 12 feet. The Corps completed dredging the channel, later referred to as "Snow's Marsh Cut," in 1876. Within a few years after dredging ceased on the new cut, the depth had seriously dropped to about 3 feet in the upper end, with only 9 feet at low tide possible. By late 1878 only smaller class vessels could safely navigate the cut (USACOE-AR 1875:90; 1876:308 1878:476; 1879:560; Wilmington Star, February 8, 1877; Wilmington Star, November 21, 1878).

Shoaling continued to occur at several other places in the river. In 1875 the cutting of a channel through the shoal known as the "Logs," immediately above Campbell Island, began. Engineers for the Corps removed two small shoals—one near the point of Campbell Island, the other above the upper jetty—in 1876 so as to allow vessels drawing 14 feet to pass without difficulty to and from the city wharves. At a point 1½ miles below the Market Street dock, a new channel was discovered. Capt. Edgar Williams of the steamer *Wm. Nyce* found the newly formed channel, which became known as the "Nyce Cut." The new route provided 18 inches more water than the channel generally used (Wilmington Star, March 17, 1873, March 30, June 2, 1876, November 21, 1878; Hartzer 1984:46).

The project of 1881 sought to obtain, by dredging, a channel 270 feet wide and 16 feet deep at low water up to Wilmington. While the Snow's Marsh cut had decreased in depth, the Horseshoe Channel had increased its depth by 18 inches, making consideration of redredging the Snow's Marsh cut doubtful. After conducting a resurvey of the entire river from the mouth to Wilmington, the Corps determined that only the upper portion of the Snow's Marsh cut had reshoaled. During 1881-1884 the principal maintenance work done was on that channel, aligning and extending the cut to the axis of the natural channel. The cut now extended 2½ miles, saving ½ mile by avoiding the Horseshoe Channel, and maintained a width of 270 feet and depth of 16 feet

(Wilmington Star, July 20, 1907; Wilmington Weekly Star, April 15, 1881; USACOE-AR 1881:920-921; 1882:937; 1883:718; Hartzer 1984:46).

Not all of the improvements initiated by the Corps of Engineers met with approval by the local citizens. The Wilmington Star reported in September 1884 that the Cape Fear jetties were doing considerable injury to navigation. Mariners were upset by the changes in the depth of water at some locations as a result of the jetties; where the river was once sufficiently deep for boating, shoals were now encountered. "The steamboatmen-for whom the jetties are intended to benefit-would be glad to see the last one of them removed." It was also during 1884 that Capt. William H. Bixby, chief engineer, for the U.S. Army Corps, came to Wilmington to take charge of the rivers and harbors in the district. By the following year he had determined to widen and deepen the existing river channel to its full dimensions—270 feet wide and at least 16 feet deep at low water—and further protect them against subsequent deterioration by using submerged stone dikes where necessary. It was also recommended that the projects be further extended, so as to deepen the bar entrance to at least 16 feet least depth at low water (Wilmington Star, September 19, 1884, February 13, 1886; Hartzer 1984:46).

In 1887 Captain Bixby and Assistant Engineer Henry Bacon recommended abandoning the Horseshoe Shoal Channel and dredging a new channel that would follow the natural course of the river. The Corps implemented the recommendations and a new cut was completed in 1890 and renamed the Snow's Marsh Channel. The new cut, located about 1,000 feet west of the Horseshoe Shoal Channel, followed the natural course of the river through "Five Fathom Hole" to the deep water at Southport. The single straight channel measured 233 feet wide and 16 feet deep at low water. The length was only about two-thirds that of the old cut and was hoped to prove more easily navigated and more permanent than the old channel. Captain Bixby reported in August 1891 that "the old Horse Shoe Channel and the old Snow's Marsh Channel seem to be steadily shoaling and closing up, and the volume of water, formerly moving through them, is daily going more and more into the new Snow's Marsh Channel, so that there is every indication of the latter's naturally expanding to 18 feet depth and about 300 feet width within the next one or two years" (Wilmington Weekly Star, June 14, 1890; August 21, October 23, 1891; Wilmington Star, June 2, 1876, July 31, 1913; Hartzer 1984:46).

While the shoals in the Snow's Marsh vicinity created the biggest obstacle to navigation handled by the Corps of Engineers, other shoal areas in the Cape Fear also had to be maintained. Opposite Wilmington a channel from the main river into the Northeast Cape Fear River had been dredged to a width of at least 264 feet and a depth of 16 feet at low water; thus allowing a 16-foot draft up the Northeast River clear to the railroad bridge at Hilton. By 1890 at the shoal opposite Kidder's mill and Alligator Creek (1 mile below Wilmington); at Brunswick River shoal (3 miles below Wilmington); at Logs and Big Island shoal (7 miles below the city); at Lilliput shoal (11 miles below Wilmington); at Midnight shoal (16 miles below the city); and at Reaves' Point shoal (19 miles below Wilmington), the channel had been completely dredged to a width of at least 270 feet and a depth of at least 16 feet at low water (Wilmington Weekly Star, June 14, 1890).

Cape Fear Bar Improvements, (1870 - 1891)

Before 1839 Bald Head Channel, also referred to as the Eastern or Seward Channel, was the natural and main entrance to the Cape Fear River. From 1839 to 1872 the Rip, also known as the Oak Island or Western Channel, and New Inlet were the main entrances, and navigation discontinued at Bald Head Channel. After 1872 and the closure of New Inlet, Bald Head Channel once again became the main channel, slowly regaining its former depths (USACOE-AR 1886:1005; Wilmington Star, December 20, 1873, April 6, 1879). By 1875 river traffic used Bald Head Channel almost entirely for shipping, as it was then superior to the Oak Island Channel. Water depths measured 11½ feet at ordinary low tide over the river bar and an available depth of 16 feet at ordinary high water—a gain of 3 feet since dredging operations began in 1870. Conversely, the western entrance was seldom used by river traffic and only by vessels of very light draft having 6½ feet depth at mean low water on the "Rip." The Corps's project for 1875 proposed occasional dredging upon the outer bar to assist in the gradual straightening and deepening of the bar entrances (Wilmington Star, February 13, 1886; USACOE-AR 1875:100; 1881:924).

A newspaper account from 1875 shows how the Corps's improvements by deepening the Bald Head Channel at the bar accomplished their objective. On February 8, 1875, Captain Potter reported that the steam tug *Alpha* towed the German Barque *Fear Not* into Bald Head Channel. The barque at the time drew 16 feet 8 inches. He goes on to say that "This is thought to be the deepest water over the bar within 60 or 80 years, and is an evidence of the thoroughness of the work of the Bar Improvements." Assistant Engineer Bacon stated that by 1879 there was 12 feet of water in Bald Head Channel at mean low tide, that ships drawing 17 feet could pass in and out of the channel on spring tides at high water, and that there was 15½ feet in the channel on ordinary high tides. Lighterage was no longer required. Vessels could cross the outer bar and proceed directly to Wilmington to unload (Wilmington Weekly Star, February 19, 1875; Wilmington Post Weekly, July 6, 1879; USACOE-AR 1886:1007).

The natural scouring effect at the mouth of the river, combined with the dredging, gave reason for the engineers to state in 1880 that "the navigation of the Cape Fear is better than it has been for more than a century." With the total closure of New Inlet the following year and the improvements accomplished at the bar, complete efforts turned to dredging the shoals upriver where only a 9-foot depth at low water was maintained. As previously mentioned, the worst of the shoal areas were located at Horseshoe Shoal and the Logs Shoal. Captain Bixby stated in his engineer's report that during the 1886-1887 fiscal year the Corps did not do any dredging or diking until October 1886 because of a lack of funds. After that time the Corps spent their efforts and funding in opening a continuous channel of at least 111 feet in width and 16 feet in depth at low water from Wilmington to the ocean bar, keeping the newly dredged Baldhead Channel open, and in placing stone in position upon the major work, the Swash Defense Dam—a dike that ran southward from Zeke's Island that further extended the New Inlet dam (Wilmington Weekly Star, August 12, 1887; Wilmington Star, February 13, 1886; USACOE-AR 1880:109).

In 1887 the Corps once again conducted navigational improvements at the main river entrance. Although dredging had greatly increased the depth at the Baldhead Channel, several sharp curves made maintaining a sufficient dredged depth difficult as well as posing a hazard to entering vessels. To correct this problem the Corps engineers decided to dredge a new and straight channel across the bar. Capt. J. W. Woodside of the U.S. steam dredge *Woodbury* dug a new channel 13 feet 8 inches deep at mean low water with the intention of reaching the old channel depth. The Corps named the new cut the Woodbury Channel for Capt. D. P. Woodbury, who was in charge of the river improvements under the Corps of Engineers from 1855-57 (Wilmington Star, December 15, 1889, July 20, 1907; Wilmington Dispatch, November 7, 1907; Reaves 1990:5).

For nearly three years the suction dredge *Woodbury* steadily worked on the new channel across the bar. By 1889 the old crooked channel had been abandoned and the new straight channel adopted by all navigation. The following year a published account provided the local residents some satisfying news about the river improvements:

> The new bar channel is steadily growing in width and depth, and is now everywhere at least 15 feet deep at low water, and 200 feet width of channel. The rise of the tide at Wilmington is about 2½ feet. Thus there is a depth of at least 16 feet at low water from Wilmington to the bar, and at least 18 feet at high water from Wilmington to the ocean. During the past year vessels drawing over 17 feet have been loaded at the city wharves and have passed safely out to sea in a single tide; and vessels of 18 feet draft might do the same in calm weather (Wilmington Weekly Star, June 14, 1890).

Captain Bixby provided in a communication later that year his assessment of the improvements at the bar and an optimistic goal for the near future: "With the exception of three short sections the survey shows a depth of 20 feet along that new route over the bar. This is 2½ feet more depth than existed in 1884, and the indications are that there will be another two feet additional depth inside of the next three or four years." Along with the improvements at the bar, the project for 1889 included maintaining the river channels at 270 feet in width and the increased depth of 20 feet from the mouth of the river to Wilmington. On the Northeast Cape Fear River dredging provided a depth of at least 6 feet at all stages of tide and water for small steamers (Wilmington Star, July 2, 1890; Wilmington Weekly Star, February 27, 1891; Wilmington Star, July 30, 1947).

Snow's Marsh Dike, (1895 - 1897)

By 1892 a navigable river channel, 270 feet wide and 16 feet deep, had been achieved, and a new project authorized to obtain 20 feet in depth. Work on that project proceeded very slowly, mainly because of continued shoaling on the new Snow's Marsh Channel and the Lilliput and Midnight shoals. The lower Snow's Marsh Channel proved to be the hardest place in the Cape Fear to keep from constantly refilling, thus making it difficult for deep draft vessels going up and down the river. Constant dredging in that section of the channel just kept pace with the sand accumulation. Clearly something else needed to be done. In 1893 Corps Engineer E. D. Thompson and his assistants made a preliminary survey of the lower portion of Snow's Marsh Channel to assess the situation and make recommendations for improvement. Thompson submitted a plan to build a dike on the east side of the cut (Wilmington Messenger, January 13, 1893, May 5, 1893; Rayburn 1985:3).

In the spring of 1895 Maj. W. S. Stanton, Corps of Engineers, implemented Thompson's plan by constructing a training dike, or wall, of brushwood bound in bundles by heavy wire. The bundles were 22 feet long and 2 feet in diameter, piled to the high tide level, and placed between 33-foot pine piles driven 15 feet into sand and mud, 8 feet apart, in two rows 5 to 6 feet apart. The first part of the pile work was constructed to the southeast of the Snow's Marsh Channel. On April 3, 1896, the Corps announced that it would extend the training dike at Snow's Marsh 2,992 feet farther from the northern, or upstream end, and 556 feet downriver from the lower end, covering the distance from Zeke's Island to Price's Creek. The Corps completed work on filling the dike with brush in May 1896 and extended the dike another 228 feet upstream and 496 feet at the lower end as a result of needed repairs—a total distance of 9,964 feet. After improving the channel the Corps abandoned the dike in 1897 because it was difficult to maintain and highly exposed to the wind and waves. By the close of the century the Corps of Engineers had dredged much of the channel from 18 to 20 feet deep, varying in width from 150 to 270 feet along the entire river. During high water a depth of 24½ feet was possible, with 22 feet in channel depth up to Wilmington (Wilmington Messenger, March 6, March 19, April 26, 1895, 1899; Sprunt 1896:112-113; Rayburn 1985:3-4; USACOE-AR 1895:1339, 1342, 1896:1132).

Twentieth-century Navigation Improvements

The first major project planned after the turn of the century came in 1902 and called for establishing a turning basin in the harbor of Wilmington. That same year the Corps reported that their goal of dredging the channel to 20 feet deep and 270 feet wide from Wilmington to the ocean was about sixty percent complete. Wilmington merchants desperately wanted the Corps of Engineers to dredge a turning basin below the confluence of the Cape Fear and Northeast Rivers and to deepen the water along the Wilmington waterfront to handle the increasing number of arriving vessels. The Corps, however, felt that the cost of such a project was too much and instead recommended construction of mooring dolphins in the river at the city. Although the dispute was not immediately settled, the Corps did have the government dredge *Ajax* enlarge the anchorage basin at the foot of Nun Street during 1905. The enlarged basin gave arriving vessels the advantage of more room to maneuver with the tide. In 1907 Wilmington citizens finally convinced the Corps to dredge a turning basin in the Wilmington harbor instead of constructing dolphins. In 1909 Capt. Earl I. Brown reported that the turning basin had been dredged over its length of 5,300 feet to a depth of 24 feet and a width of 150 to 300 feet (Wilmington Star, July 25, 1902; Wilmington Dispatch, February 8, 1905; (Wilmington Messenger, January 13, 1906; Rayburn 1985:4).

The snag puller *H. G. Wright* in late September or early October 1902 began removing obstructions at the mouth of the Brunswick River consisting of old pilings as well as obstructions put down in accordance with the plan for the defense of Wilmington when the war broke out with Spain in April 1898 **(Figure 35)**. The Corps removed obstructions during 1903, securing a channel at the river's mouth 100 feet wide and 7 feet deep (Wilmington Messenger, October 9, 1902; Sprunt 1992:13; CSAE 1865b; USACOE 1876b). By 1907 all ten channels from Wilmington to Baldhead bar had been completed to a width of between 148 feet to 270 feet, and all except Snow's Marsh had a depth of 20 feet. Dredging deepened the ocean bar to 22 feet. Congress approved additional funding on March 2, 1907, for continued improvements to the 20-foot depth and the anchorage basin at Wilmington—2,000 feet in length, 900 feet wide at its upper end, and 1,100 feet wide at its lower end (Wilmington Star, July 25, 1902; Wilmington Dispatch, February 8, 1905; Wilmington Messenger, January 13, 1906; Rayburn 1985:4).

Dredging continued by the Corps of Engineers on the channels, and by 1912 the Cape Fear had reached a depth of 26 to 28 feet and a width of between 74 and 270 feet up to Wilmington. The river channel reached 26 feet deep by Reaves' Point, then 28 feet on up to Wilmington at a width of 150 feet (excepting the lower reach of Snow's Marsh Channel where the channel depth was 26 feet and 270 feet wide, and at Keg Island shoal where the channel width was 28 feet and 150 feet wide). By 1911 or 1912, the Snow's Marsh Channel had also been straightened into one reach instead of two. Navigational improvements to the Cape Fear by the summer of 1912 had obtained a channel 26 feet deep across the bar, varying in widths from 250 to 300 feet. With the use of the Baldhead Bar Channel, instead of the Western Rip Channel, the inner bar had progressively moved west 500 feet, while the outer bar remained unchanged (Wilmington Star, October 21, 1911, August 3, 1912, July 30, 1947; Rayburn 1985:4-5; Hartzer 1984:48).

Hazards caused by the shoaling of Brunswick Cove, located just below Orton Point, continued to cause great concern for the ship crews using the Cape Fear River. About 1911 they recommended to the Board of Commissioners of Navigation and Pilotage that a straight cut from Orton Point to the cut opposite Brunswick be made in order to permanently eliminate that obstruction to navigation. In the opinion of the pilots, the cove "would never be made permanently navigable, as it required dredging every year

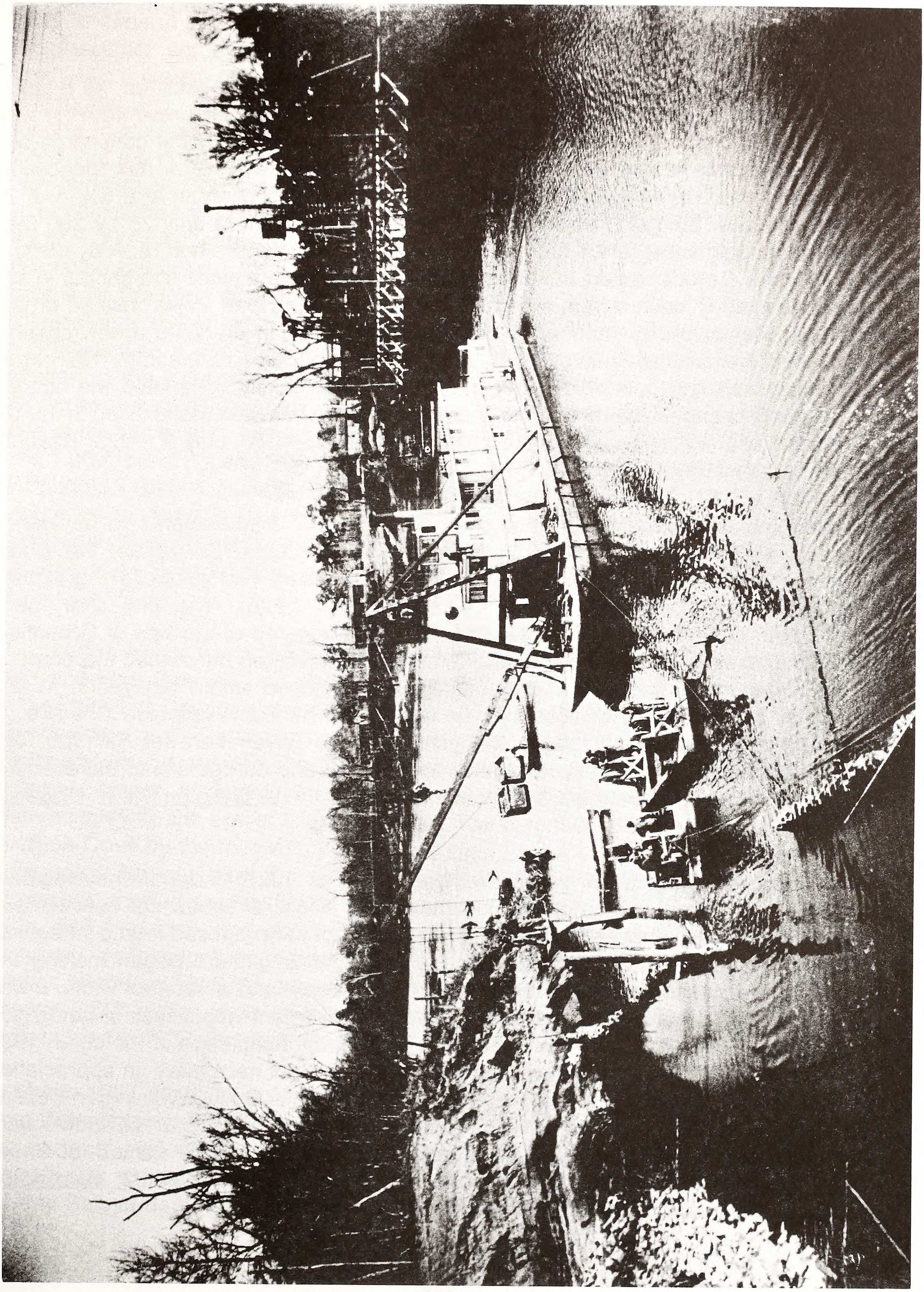


Figure 35. Photograph showing dredging by *H. G. Wright.*

or 18 months; but that this expense and danger might be avoided by the cut of a straight channel" (Wilmington Star, October 5, 1911).

With the outbreak of World War I, the commerce of Wilmington declined, as it did at many other ports, when hostile enemy raiders and submarines prevented the free navigation of the Atlantic Ocean. At the close of the war in 1918 the commerce and river improvements that had dwindled were once again revived. A new peacetime project adopted in 1919 called for dredging a 400-foot-wide channel at a depth of 30 feet over the bar. By 1922, however, the bar channel measured only 26 by 200 feet, despite continual maintenance dredging. The Corps of Engineers had recently made a series of water current studies at the bar and found that water flowed straight out to sea on a southwesterly course from the channel west of Bald Head Point, instead of due west, the direction of the channel. In 1922 the Corps began dredging a new channel that followed the current. An average depth of 26 feet had been obtained by 1925 when the channel was first opened to navigation, and when finally completed the straight southwesterly channel was 30 feet deep and eliminated the curve that existed in the old route to the sea (Wilmington News-Dispatch, May 2, June 30, July 1, 1925; Rayburn 1985:5; Hartzer 1984:48).

At Wilmington the Corps of Engineers conducted other improvements to navigation during the early 1920s. At Point Peter, opposite Champion Compress, the Corps removed a shell rock ledge where a number of vessels had previously grounded (Wilmington News-Dispatch, July 9, September 30, 1925). The city also made provisions for conversion of the old Liberty Shipyard, located at the foot of Greenfield and Willard Streets, to public docks and terminals. Wilmington purchased the property with the condition that public port terminals be developed within ten years. In late August 1920 the city council accepted the deal made by the Wilmington Chamber of Commerce to purchase the Liberty Shipyard from the government for $37,500. The Corps engineers later made improvements to the dock and dredge slip to increase the depth to correspond with the 26-foot anchorage basin (Wilmington News-Dispatch, November 10, 1925).

A major element of the Corps's improvement project of 1927, under district engineer Maj. William A. Snow, called for the construction of a lock at a new cut between two tidal areas on opposite sides of Federal Point as part of the proposed Inland Waterway system. In 1929 a private contractor for the Corps of Engineers began making the nearly 1½ mile cut across Federal Point to a 12-foot depth and a 100-foot width. It was feared that swift currents and a difference in tidal movement would restrict navigation through the cut, thus requiring the need for a lock. Upon completion of the cut in 1931 the Corps found that the change was minimal and a lock not necessary. In appreciation for the efficiency shown by the Wilmington District and Major Snow, Wilmington citizens petitioned the chamber of commerce to adopt a resolution in recognition of Snow's work by naming the cut after him. Although the cut could not officially be named for Snow, local residents continued to call the inlet Snow's Cut (Hartzer 1984:62; Wilmington Star-News, November 18, 1984).

In 1930 federal authorization allowed the Corps to maintain a 30-foot channel. A congressional act on July 3, 1930, modified the old act and approved the new depth—an increase of 4 feet over the old depth (Wilmington News, December 3, 1929; Wilmington Star, July 30, 1947). In 1931 local interests put forth the motion at a public hearing to deepen Smith's Creek to allow for light navigation. Early plans submitted noted that the mouth of the steam should be dredged to a depth corresponding to the river channel. A Corps survey of the project later supported improving the Northeast River above the city (Wilmington Star, March 6, 1931). During 1931 the Corps removed nearly 6,000 cubic yards of rock opposite the city wharfs to reach the proposed 30-foot navigation depth and for a turning basin (Wilmington News, June 2, 5, 1931). After months of dredging the Corps obtained the 30-foot Cape Fear River channel from Wilmington to the Atlantic Ocean on August 22, 1932. Work of dredging the Cape Fear to 30 feet with a 300-foot bottom width had cost more than two million dollars. In addition to the increased channel width, the Corps dredged adequate anchoring and turning basins at Wilmington. The anchorage basin measured 2,000 feet long, 900 feet wide at the upper end, with approaches 1,500 feet long at both ends. The turning basin was 1,000 feet long and 600 feet wide, with approaches 500 feet long at both ends (Wilmington Star, August 9, 1932; Wilmington News, August 22, 1932). Natural sand accumulation filled New Inlet completly in 1931. A local resident, J. W. Winner, reported that he was able to drive his car across the strand to the connecting island. A bay known as Buzzard Bay formed between the dam and the strand (Wilmington Star, March 17, 1931).

The dredge *Henry Bacon* began work on straightening out "a curve" in the channel of the Cape Fear River at Orton in November 1932. Local pilots had made the suggestion to the Board of Commissioners as early as 1911 to eliminate the curve through Orton (Brunswick) Cove. The project called for the new dredging of roughly 7,400 feet. Two reaches were cut out with the view of eliminating shoaling at that point in the 30-foot channel. Upper Midnight channel was extended by dredging northward to an intersection with the Lower Liliput Channel. The extension eliminated the old channels in Orton Cove by the following year (Wilmington Star, October 5, 1911, April 16, 1933; Wilmington News, December 21, 1932). In 1933 the Wilmington District, Corps of Engineers granted permission to the Texas Oil Company, to dredge a channel 80 feet wide, 540 feet long, and about 28 feet deep at its dock just below Wilmington. The company deposited their dredged material near the mouth of Redmond Creek on Eagles Island. In 1936 the same company again made an application for permission to dredge 5,500 cubic yards of material from in front of their terminal (Wilmington Star, December 19, 1933; October 11, 1936).

In March 1937 the Wilmington Chamber of Commerce requested that the river channel from Wilmington to Southport be widened from 300 to 400 feet, that the turning basin at the northern end of the harbor be deepened, and that the river channel leading from Snow's Cut to the Cape Fear River channel and the river channel opposite the old Liberty Shipyards be straightened. The Corps, however, only pursued one new project in 1937—the dredging of portions of Smith Creek to a depth of 12 feet (Wilmington News, March 5, 1937, January 13, 1938). The following year the Corps approved three improvement projects: widening the river channel from the inner end of the ocean bar at Southport to Wilmington from 300 to 400 feet, maintaining its present channel depth of 30 feet; making the 30-foot-deep by 600-foot-wide basin into a 30-by-800-foot basin; and dredging a channel 12 feet deep and 100 feet wide from the eastern entrance of the Inland Waterway to a connection about 3 miles upstream with the main river channel. This new dredging was known as the Snow's cut "shortcut" project, but work did not begin until 1948 (Wilmington Star, September 15, 1938; Wilmington Star, November 5, 1948).

Before 1940 the Northeast Cape Fear River had been maintained as a separate navigation project, but the Corps recognized the consensus that it was a part of the harbor of Wilmington and afterward considered it with the Cape Fear River work. Maj. Gen. J. L. Schley, chief of the U.S. Army Engineers in 1940, approved a recommendation that the Northeast Cape Fear River be deepened to 25 feet and widened to 200 feet for 1¼ miles above Wilmington. The project also provided for increasing the width at the bends of the river extending from Hilton bridge and included a new turning basin of the same depth and 600 feet wide at a point 1¼ miles above the bridge. Originally the project had authorized a 22-foot channel, for which local interests were to contribute half of the costs. With the approval of Major General Schley, the Corps canceled the original project (Wilmington Star, March 15, 1940).

When the United States entered World War II in 1941, the Maritime Commission once again selected Wilmington as the location of a major wartime shipbuilding center. While most of the river improvements were placed on hold during the war, the Corps conducted some dredging activity at new shipways of the North Carolina Shipbuilding company located 3 miles south of the city. Following the war, the U.S. Army Corps of Engineers resumed dredging of the Cape Fear. The Corps "began dredging operations in the Cape Fear River channel to a project depth of 30 feet and increased its width to 300 feet from Wilmington to the sea." Shoals that had accumulated during the war at the turning basin and anchorage basin in Wilmington and within the river were removed (Wilmington News, January 9, 1942, November 30, 1945, December 26, 1945).

By 1946 the postwar commerce of Wilmington was making a rapid and expanded recovery. The newly created North Carolina State Ports Authority developed terminal facilities in the southern part of Wilmington. An increase in the number and size of vessels arriving at Wilmington prompted the Corps of Engineers to recommend deepening the Cape Fear River to accommodate these larger ships. The Corps announced in June 1946 that the channel would be dredged to 32 feet with a 400-foot width. The year-long job of increasing the depth of the Cape Fear River channel got under way in April 1947 as the huge dredge *Pennsylvania* began operations at the mouth of the Brunswick River. During the war dredges had been diverted to military work neglecting maintenance at the ocean bar. The shoals that built up forced ships to wait for high tide. By the spring of 1947 the Wilmington District engineers revealed that restoration of the bar from 26 to 30 feet was practically completed, and oil tankers and cargo ships were soon expected to cross over the bar without having to wait for high tide (Wilmington News, June 20, 1946, April 17, 1947; Wilmington Star, July 16, 1946; Wilmington Post, March 11, 1947).

One of the largest projects during the 1950s was the construction of the Military Ocean Terminal at Sunny Point (MOTSU), a specially designed ammunition loading facility. In accordance with the Army's plan of keeping loading facilities as far away from populated centers as practical, they selected a location in Brunswick County, 15 miles below Wilmington on the Cape Fear. The completed project encompassed 7 miles of shoreline between the mouth of Walden Creek and a point just below the ruins of Brunswick Town. The Wilmington District began construction on the terminal in December 1952 and completed it by the fall of 1955. Three huge docks—situated a halfmile apart—were built by the Diamond Construction Company of Savannah, Georgia, each being 2,400 feet long and 87 feet wide. Beginning in January 1953 the Corps dredged ship channels 34 feet deep and 300 feet wide to each of the docks from the main channel. They also dredged at each dock a 800-foot turning basin (Angley 1983:29; Hartzer 1984:75).

During the 1960s and 1970s improvements continued to be made at various places in the Cape Fear River. In 1965 the Corps extended the 200-foot-wide by 25-foot-deep channel above the Hilton Bridge 2,200 feet upstream of the turning basin; the width and length of the turning basin were increased 100 feet. In 1967 Col. Beverly C. Snow Jr., district engineer for the Wilmington District, recommended to the chief of engineers that the authorized project depth be increased from 30 to 32 feet in the river from Castle Street to the Hilton Railroad Bridge and widened to 400 feet. The chief of engineers accepted Snow's recommendations and dredging commenced. Under contract work dredges deepend the river channel below Castle Street to Southport from 34 to 38 feet. Congress authorized during the early 1970s a channel 40 feet deep and 500 feet wide over the ocean bar and 38 feet deep by 400 feet wide to the upper end of the anchorage basin at Wilmington. In 1982 the turning basin at Wilmington was widened by 100 feet to accommodate ships up to 800 feet long. The basin is now approximately 2,000 feet long and between 900 and 1,200 feet at its greatest width, allowing vessels up to 750 to 850 feet long to visit at the port (Wilmington Star-News, January 8, 1967, March 4, 1967, June 14, 1967; Wilmington Star, July 21, 1982; Hartzer 1984:107, 110).

Current Navigation Projects

The U.S. Army Corps of Engineers presently maintains a turning basin and anchorage basin at Wilmington and a smaller turning basin in the Northeast Cape Fear above Smith's Creek. From the ocean bar to Wilmington twenty ranges have been established: Baldhead Shoal, Smith Island, Baldhead-Caswell, Southport; Battery Island, Lower Swash, Snows Marsh, Horseshoe Shoal, Reaves Point, Lower Midnight, Upper Midnight, Lower Lilliput, Upper Lilliput, Keg Island, Lower Big Island, Upper Big Island, Lower Brunswick, Upper Brunswick, Fourth East Jetty, and Between Channel.

An additional six reaches are located at and above Wilmington on the Northeast Cape Fear River. Collectively the basins and ranges are referred to as Wilmington Harbor and extend about 35 miles.

At the time the Underwater Archaeology Unit conducted the survey in 1993, the Corps of Engineers Federal Project was authorized to maintain a main channel 40 feet deep and 500 feet wide from the Atlantic Ocean through the ocean bar and entrance channels (including Baldhead Shoal, Smith Island, Baldhead-Caswell, Southport, and Battery Island Channels). However, because of dredging inaccuracies and rock obstructions, the authorized depth of 40 feet has not been achieved at Smith Island or Baldhead Shoal Channel. From the entrance channels to the upper end of the anchorage/turning basin at the Cape Fear Memorial Bridge the Corps has been authorized to maintain the main channel at 38 feet deep and 400 feet wide. From the Cape Fear Memorial Bridge to the Hilton Railroad Bridge over the Northeast Cape Fear River, a channel 32 feet deep and 400 feet wide is maintained (including a turning basin of the same depth). The channel is maintained at a depth of 25 feet and a width of 200 feet from the Hilton Railroad Bridge to a point 1.7 miles above the bridge. A turning basin located 1.25 miles above the Hilton Railroad Bridge is also dredged to the same depth (USACOE report 18 September 1992).

Additional projected improvements include the Turns and Bends project, Baldhead Shoal Channel rock dredging, widening Smith Island channel and the Northeast Cape Fear River project. The Turns and Bends project consists of widening six turns and bends below Wilmington by 75 to 140 feet. The Northeast Cape Fear River project includes:

> Widening of the Fourth East Jetty Channel 100 feet to the west at the existing project depth of 38 feet for a distance of about 8,000 feet.
>
> Deepening the navigation channel from the project depth of 32 feet to 38 feet at a width of 400 feet between Cape Fear Memorial Bridge and the NC 133 Bridge.
>
> Widening the turning basin just upstream from the mouth of the Northeast Cape Fear River by 50 feet on the west side at a project depth of 38 feet.
>
> Deepening the navigation channel from a project depth of 32 feet to 38 feet at a width of 300 feet from the NC 133 Highway Bridge to the Hilton Railroad Bridge, located 2,600 feet upstream, and deepening the navigation channel from a project depth of 25 feet to 38 feet at a width of 200 feet from the Hilton Railroad Bridge to a point approximately 750 feet upstream (USACOE report 18 September 1992).

The Baldhead Shoal project included deepening to the 46-foot contour. The Smith Island channel project will deepen an additional 2 feet and add a 50-foot widener to the west side of the channel to retard the shoaling rate.

Port facilities maintained at Wilmington Harbor include 47 major piers, wharves, docks, and mooring dolphins. Fourteen of the major docking facilities in Wilmington Harbor are owned by the North Carolina State Ports Authority. The State Ports Authority facilities include eleven berths and approximately 6,800 feet of berthing. Five container cranes are now in operation at the State Ports (USACOE report September 18, 1992).

Approximately 82 percent of the commerce in Wilmington Harbor is deep-draft, oceangoing trade. In 1990 Wilmington Harbor had 881 vessel calls. Twenty percent of these vessels required some amount of tidal assistance for under-keel clearance, and 9 percent could enter only at high tide. Vessels with drafts greater than 36 feet must be light loaded to transit the ocean bar, regardless of tide. While draft limits are most severe for larger vessels, they affect practically all traffic in Wilmington Harbor. Over the last 4 years an annual average of approximately 240 ships calling at the Port of Wilmington were "Panamax" class ships. Ships in this class are 750 to 950 feet long, have a beam of about 106 feet, and a draft of 38 to 40 feet. The term "Panamax" indicates that this is the largest class of vessel which negotiates the 38.5-foot draft limitation of the Panama Canal. However, these vessels cannot enter Wilmington Harbor without being light loaded, even during high tide (USACOE report 18 September 1992).

With a controlling depth of 38 feet the bar channel effectively limits the use of the entire Wilmington Harbor project. Deepening the ocean bar channel to its authorized 40-foot depth would allow full utilization of the river channels to the Port of Wilmington. However, based on historical data and projections of future vessel sizes, light loading and tidal delays would still occur even if the bar channel is deepened to its authorized 40-foot depth (USACOE report 18 September 1992).

Table 1-1.

Chronological list of Navigation Improvements on the Cape Fear River

1733 - Cape Fear River channel shown on the Edward Moseley map to flow near the western shoreline.

1761 - New Inlet opened by storm.

1762 - Earliest mention of the Flats from Governor Dobbs's report to the London Board of Trade.

1775 - Wilmington Committee of Safety authorized John Forster, William Wilkinson and John Slingsby to procure any necessary vessels to be sunk as a blockade across the channel at the Flats to protect against British ships.

1795 - The Commissioners of Revenue authorized James Read to receive proposals for staking out a navigable channel in the Cape Fear River.

1817 - State of North Carolina authorized the creation of a commission to investigate the navigability of the state's rivers. The first steamboat, *Prometheus*, arrived on the Cape Fear River.

1822 - State of North Carolina implemented a program under Hamilton Fulton to improve the river between Wilmington and Big Island (Campbell Island) by embankments, jetties, and dredging. This resulted in a gain of depth of 2 feet.

1829 - The U.S. Army Corps of Engineers (USACOE) undertook the dredging and maintenance of the ship channel in the river for a period of ten years. This channel extended from a point 2.7 miles above the confluence of the Cape Fear and the Northeast Rivers and extended 3 miles into the ocean, across the bar formed by Middle Ground and Baldhead Shoals.

1853 - A USACOE project under Capt. Daniel P. Woodbury called for deepening the depth of water at the main entrance by constructing jetties at Baldhead Point and by a jetty between Smith's Island and Zeke's Island near New Inlet.

1871 - The USACOE began straightening and deepening the river channel by dredging and diverting the tidal flow from New Inlet by closing the breach between Zeke's Island and Federal Point. Work began to close New Inlet by a stone dam, 5,300 feet long. The channel was dredged to a depth of 12 feet and a width of 100 feet from the entrance channel to Wilmington.

1874 - Contractors for the USACOE dredged a new channel west of Horseshoe Shoal, 100 feet wide and 9 feet deep. This new channel avoided much of the circuitous Horseshoe Channel and considerably shortened and straightened the main route.

1881 - The navigation project began dredging a channel 270 feet wide and 16 feet deep at low water up to Wilmington.

1887 - The new Woodbury Channel was dug at the mouth of the Cape Fear River.

1889 - Swash defense dam, a stone structure 12,800 feet long running between Zeke's Island and Smith Island, was completed.

1890 - The ship channel was dredged and maintained to a depth of 20 feet and a width of 270 feet from Wilmington to the ocean.

1895 - The USACOE constructed a training dike southeast of Snow's Marsh. The dike improved the channel somewhat but was abandoned in 1897 because it was not cost effective to maintain.

1909 - A turning basin at Wilmington was dredged to a length of 5,300 feet, a depth of 24 feet, and a width of 150 to 300 feet.

1912 - The Rivers and Harbors Act provided for a 26-foot-deep channel with a width at the ocean bar of 400 feet, thence 26 feet deep and 300 feet wide to Wilmington.

1929 - Work began on Snow's Cut Channel across Federal Point. The cut was completed in 1931 with a 12-foot depth and 100-foot width.

1930 - The river channel was deepened to 30 feet with increased width at its bends. The anchorage basin at Wilmington and turning basins opposite principal terminals were enlarged. The 30-foot Cape Fear River channel from Wilmington to the Atlantic Ocean was completed by August 1932.

1937 - A portion of Smith Creek was dredged to a depth of 12 feet.

1945 - The North Carolina State Ports Authority was created and established at Wilmington.

1946 - The ship channel was increased to a width of 400 feet and a depth of 32 feet up to Wilmington, and the turning basin was enlarged.

1948 - A channel 200 feet wide by 25 feet deep was dredged from the Hilton Bridge upstream for 1.25 miles. A 600-foot-wide by 600-foot-long turning basin was also dredged at the upstream end. The Snow's cut "shortcut" channels, 12 feet deep and 100 feet wide, were dredged between Snow's cut and the river channel.

1950 - The depth over the ocean bar was increased to 35 feet, and the depth of the remaining reaches was increased to 34 feet up to Castle Street in Wilmington.

1955 - Military Ocean Terminal Sunny Point (MOTSU) was opened and entrance channels dredged.

1965 - The 200-foot- wide by 25-foot-deep channel above the Hilton Bridge was extended 2,200 feet upstream of the turning basin, and the width and length of the turning basin was increased 100 feet.

1966-1970 - The navigation channel in the river was increased to 38 feet by 400 feet up to Castle Street in Wilmington.

1971 - The navigation channel over the ocean bar was deepened to 40 feet and maintained at a width of 500 feet.

1972 - Navigation improvements were made in the section of the river adjacent to Wilmington (above Castle Street) to a depth of 32 feet by 400 feet.

1982 - The turning basin opposite the North Carolina State Port Terminal was widened.

1995 - Baldhead Channel deepened to a depth of 46 feet through rock. Smith Island Channel deepened an additional 2 feet and widened by 50 feet.

Cartographic Research

Maps from the Lower Cape Fear River vicinity were extensively investigated in an effort to identify current and historical sites associated with the project area. Each map was inspected for any significant information and that data noted for comparison. The Cape Fear River has a lengthy historic background resulting in numerous maps of the region. Although many maps were reviewed, the following list is not exhaustive. Those maps not covered in the inventory include county and state highway maps, aerial photographs, road maps, and those published specifically for books. Maps are listed in chronological order (See also Appendix 1B).

Untitled Map, John White, 1585.

The White map (1585) is one of the earliest English maps available that shows the eastern coast of North Carolina following the period when explorers came to the Cape Fear vicinity. The map illustrates the coast from Virginia to Florida with the Outer Banks of North Carolina reasonably well shown. Cape Fear appears unlabeled on the map with shoaling marked in the area of the present Frying Pan Shoals. The Cape Fear River is labeled as the "R. Jordan."

Americae pars, Nunc Virginia . . . , John White and Theodore De Bry, 1590.

The White-De Bry map of 1590 illustrates the Atlantic coast from the Chesapeake Bay "Chesepiooc Sinus" to below Cape Fear in North Carolina. The Outer Banks are well shown with inlets and Indian villages. Several unlabeled rivers appear on the map along the North Carolina coast.

Virginiae Item et Floridae Americae Provinciarom, Nova Descriptio, Mercator-Hondius, 1606.

Illustrators drew this map in 1606 based upon earlier works. It documents the coastal region from the Chesapeake Bay to north Florida. Place names appear in Latin, French, and Spanish. Indian village names and those for capes are depicted. Cape Fear is shown in Spanish on the map as "C. S. Romano Hispanis."

The South Part of Virginia Now the North Part of Carolina, Nicholas Comberford, 1657.

The Comberford Map of 1657 depicts part of the northern coast of North Carolina. The distorted view in this seventeenth-century map mistakenly indicates the Outer Banks as extending to a point labeled on the map as "C Feare," just south of the "Neus" River. This point, in fact, is Cape Lookout. The error began on earlier maps and was repeated on this map. Nothing from the actual vicinity of the project area is shown on this map.

Untitled sketch of the Discovery made by William Hilton, Nicolas Shapley, 1662.

This map, prepared by Nicholas Shapley of Massachusetts Bay in 1662 to accompany a written report by William Hilton, illustrates the coast from Cape Hatteras to Cape Romain. The Shapley map is the first to show the lower Cape Fear in any detail. Cape Fear is not labeled, although it was called "Cape feare" in Hilton's report. At the mouth of the "Charles River" (Cape Fear River) two anchorages are shown at the bar. On the western side of the river, in the vicinity of present-day Southport, a point is identified as "P Winslow," after one of Hilton's crew, Edward Winslow. Nearby "Crane lland" is labeled. "Indian River" (Town Creek) appears farther upstream on the same side of the river. On the south bank of Indian River a point, or plantation, appears as "Sachoms P." The Brunswick River is indicated as "Hiltons R," while the Northwest branch of the Cape Fear may be indicated as "Greens R," named for John Green, a member of Hilton's crew. On the eastern shore "Goldsmith R," named for crew member Samuel Goldsmith may represent the current Smith Creek. A parapeted fortification identified as "James fort" is marked on the eastern side of the river.

Carolina Described, Anonymous, Robert Horne, 1666.

This fanciful map of a section of the Atlantic coast from Cape Henry to south of Port Royal done by Robert Horen dates to 1666. Present-day Federal Point is shown as a long narrow strip of land that terminates at the "C. Fear." Water depths near the shoals at the entrance to the river range from 2½ feet to 8 feet. "Charles Town" is indicated along the western side of the "Charles Riv." Several islands depicted within the river include "Crane Ile" and "Goose Ile." In what is likely the area of Eagles Island, topographic features by name include "Blowers Ile," "Green Riv." and "Swampy Branck."

A New Discription of Carolina By Order of the Lords Proprietors, John Ogilby, ca. 1672.

On the Ogilby map the area of Carolina between the coast and the Appalachian Mountains are covered. The Lords Proprietors provided the information used in making the map, and as such, it is often called The First Lords Proprietors' Map. The "Cape Fear" is marked on this map at the mouth of the "Clarendon River," named for Edward Hyde (1609-74), Earl of Clarendon, one of the Lords Proprietors. Also illustrated is "Clarendon County," formed in 1664 and in existence until 1667. "Cranes lland," now Eagles Island across from present day Wilmington, is shown on the Ogilby map. "Longs lland," located just north of "Cranes lland," was probably named for Capt. Anthony Long, a member of an expedition led by Capt. William Hilton in 1663 to explore the lower Cape Fear region. In addition to "Longs lland" there is also shown on the map "Longs Delight" near the headwaters of the Cape Fear "Clarendon" River. Located between "Longs Delight" and "Cranes lland" are three place names: "New Town," "Turky Quarters," and "Pine Plains." "New Town" probably refers to the settlement of Charles Town in 1662 under the leadership of Captain Hilton on Town Creek in present day Brunswick County. Charles Town was abandoned in 1663, reoccupied, and again abandoned in 1665. Hilton also provided the names "Turkey Quarters" and "Pine Plains."

To The Right Honorable Will. Earle of Craven, Pallatine and the rest of ye true and absolute Lords and Proprietors, of the Province of Carolina, Joel Gascoyne, 1682.
Joel Gascoyne's New Map of the Country of Carolina in 1682 illustrates the coast from Cape Henry to St. Augustine. The mainland at the mouth of the Cape Fear River is shown as a well-defined peninsula into the ocean and marked "Cape Fear." Water depths are shown ranging from 9 to 16 feet off of Cape Fear. The river is indicated on the map as both the "C. Fear or Clarendon R." Above the confluence, the Cape Fear River is labeled "The West Branch," and the Northeast River is marked "Ye East Branch." On the western side of the Cape Fear River, "Charles Towne" is shown. An unlabeled river or creek enters the Cape Fear River near its mouth from the west. This is presumably the Elizabeth River. The islands of "Longs" and "Cranes" are marked.

A New Map of Carolina, Philip Lea, 1695.
Philip Lea's map of 1695 shows most of the Carolina coast. West of the "C. Fear R. or Clarendon River" the area is clearly labeled as "Clarendon County." At the "Cape Fear" water depths range from only 3 feet to 9 feet. Two anchorages are also shown near the mouth of the river. On the west shore of the river "Charles Towne" is noted. Near the confluence of the Cape Fear River and "The West Branch" the islands of "Longs I" and "Cranes I" are visible.

A Map for the Lords Proprietors of Carolina in America, John Lawson, 1709.
In 1709 John Lawson prepared a map for the Lords Proprietors in Carolina that illustrated a large section of the Carolinas. Limited information is detailed for the project area. Shown at the mouth of the "Clarendon R." is "Cape Fair." On the western shore of the river "Charles Town" has been depicted. Also noted are "Crany I" and "The West Branch."

Untitled southeastern North America, John Barnwell, 1722.
The 1722 Barnwell map of the southeast shows the area from Cape Charles, Virginia, southward to Cape Canaveral, Florida, and westward to the Mississippi River. Numerous geographic locations, including French, Spanish, Indian, and English settlements, are shown. The "Cape Fear" is indicated as a prominent penisula similar to that shown on the Gascoyne map. The Barnwell map is the first to solely label the river as the "Cape Fear River."

Carolina, Herman Moll, 1729.
In 1729 geographer Herman Moll created a map of the southeast region. His map covers the area from "The South Bounds of Carolina" to "C. Charles" in Virginia and westward to the mountains. Considerable detail is shown for the coast, with towns, counties, rivers, inlets, and other information marked. Cape Fear is shown as "C. Fear" and is additionally marked to indicate that it "Divided N. and S. Carolina." The Cape Fear River is again labeled as the "Clarendon R." with "The North West Branch" and "The West Branch" shown. "Longs I." and "Charles T." are indicated on the map within "Clarendon County."

A New and Correct Map of the Province of North Carolina,
Edward Moseley, 1733.
The Moseley map of 1733 is a remarkable improvement in detail over earlier maps. It illustrates the coast from north of Currituck Inlet to Cape Carteret in South Carolina. The "Cape Fear" is clearly indicated on the map with a southeasterly line of shoals marked. Text shown in the area of Frying Pan shoals reads, "Between 5 & 6 miles from the shore is a Swatch, about half a mile wide, discernible in moderate weather which Swatch has 12 feet water, the rest of the Shole has 5 or 6 feet water." On Smiths Island, shown as "Landgrave Smiths I," small tributaries flow west into the river near a point marked "Barren Head." The channel is depicted from the ocean into the river. Water depths at the mouth of the river range from 2 to 7 fathoms. The channel passes to the east of a visible shoal (Middle Ground), then curves to the west side of the river around a group of islands (Battery, Striking and Shellbed), then continues up the west side of the river approximately 10 miles. The "Elizabeth R" is shown near the mouth of the Cape Fear River.

"Brunswick Town" is marked on the west side of the Cape Fear River on the "Road from Charles Town in South Carolina to North Carolina." An unnamed ferry at this location transported people and goods across the Cape Fear River where the road continued up the eastern coast of North Carolina. A second ferry is marked on the map on the western shore of the river north of "Old Town Creek." Southeast and opposite Brunswick Town the "Lower Haul over" that crosses the narrow section of the Cape Fear penisula is marked. From the mouth of the river northward the western shore is labeled with points of land that include "Bonnets," "Deep water," "One Tree," and "Sturgeons," as well as several names of property owners.

A Large and . . . Draft of the Sea Cost of No. Carolina from Sholote Inlet to Coretuck with a true draft of Cape faire Rever, James Wimble, 1733.
A map to accompany a manuscript produced by James Wimble in 1733 shows a section of the North Carolina coast. Spelling of most of the place names on the map are incorrect. The Frying Pan shoals at Cape Fear are shown as "Cape faire Shole." Text on the map states that "A pasagde over Severall parts of the Sole [shoal] in 10-11 feet

wat[e]r" were indicated or "marked down" on the map. Smith Island is shown as "Cape Land," while Bald Head is labeled as "Bol Hed." A line of sail into the river is indicated as "Channel way" through water depths that range from 4 feet to 7 feet. Sailing instructions "over the Barr" are given in text on the map, indicating a depth of 3 fathoms. The "Channel way" is a straight line from the ocean into the river passing between "Bol Hed" and "oak Island" just east of Middle Ground shoal. It enters the river past the anchorage and ends at the "Govennors pine" on the west side of the river above "govennor creeks." Above this location "Brownswick town" is depicted. A river anchorage is displayed on the map adjacent to the town. The east side of the river is indicated as shoaled. Above Brunswick Town, "ole town" is marked. For the first time Wilmington is listed on a map as "New Carthage town" at the confluence of the "N.W. Rever" and the "N.E. Rever." Three anchorages are shown at "New Carthage."

North Carolina, James Wimble, 1738.

In 1738 James Wimble made a map showing the eastern coastline of North Carolina from Currituck Inlet to Shallote Inlet. The Cape Fear vicinity is fairly well illustrated with some spellings corrected. Cape Fear is now shown as "C. Fair" with an east-west passage across the "C. Fair Shoals." Four cuts across the shoals are shown with depths of 9, 10, 11, and 18 feet, respectively from north to south. On the Cape, "Balhead" is shown. "Middle Ground" is marked for the first time on this map, and "Oak I." is also labeled. A fortification (Fort Johnston) is visible on the western shore above the mouth of the "Elizabeth R.," and "Governor's Point," "Brunswick" and "Old Town" are also present on the western side of the river. The names of several property owners are given along both sides of the river. "Eagles" (Eagles Island) is first mentioned on this map. On the eastern side of the Cape Fear River, the town of "Wilmington" is now listed with two anchorages. Shoaling is still indicated on the eastern side of the river. A sailing line into the Cape Fear River is marked on the map and indicated by "This line leads over the Bar." The line again enters from the ocean to "Governor's Pt." on the western side of the river. In the lower right corner of the Wimble map sailing instructions for entering the "C. Fair R." are given as described below:

> You must keep in the Latt. of 33^{o} 20" (or Southerly) till You make Land 7 Leagues from Shore in 12 fathom, hauling toward the Shore to the Eastward till You make the Cape Land, trenching from Ye River's mouth S.E. by E. 10 miles to the Pitch of the Cape, which is a white Sandy Pt. from thence the Shoal trenches out 7 Leagues S. Westerly through which run Several final Channels 9 10 & 12 foot, and in the Middle of the Cape Land You'l discern a Gap in the Trees and the Breakers of the Middle Ground, then keep to the Eastward, till You just Shut in the Governour's Pt. (which is the Westermost & furthest Pt. in the River) with the Bald Head, (which is the Eastermost Pt. of the Harbour and is a white sandy Pt.) that mark will run You in the best Water 3½ fathom, between the Middle Ground & the Eastern Flat keep close to the Bald Head, and then Steer N by W 3 Miles for the E. End of Oak I. keeping a small distance

from the Mouth of Elizabeth R. for the flood and ebb Tide both set in upon the Oyster beds; then Steer N.E. 3 Miles from Oak I. leaving a Small Sandy I. on the starboard side, and come to an Anchor there 8 fathom Water, a Cables length from the MaineLand and there runs a Strong Tide, take a Pilot to carry You up the Country; Close along Oak I. and the Middle Ground, You have a 9 foot Channel for Smal Vessels.

A New and Exact Plan of Cape Fear River from the Bar to Brunswick, Edward Hyrne, 1749.

Edward Hyrne's map of the Cape Fear River from the Bar to Brunswick, completed in 1749, shows a number of interesting geographic locations and features. The shoals located at "Cape Fear Point" are indicated "to run out 7 Leagues." A swash across the shoal is marked as being "3 Feet deep at Low Water." Text written beside the swash states that "There is another Swash about 4 leagues from the shore." Also mentioned is "the South Point of the Frying Pan islands 7½ Leagues from the Shore in Lat 33-32. . . ." Between "Cape Land" (Smith Island) and Oak Island are the shoals at the mouth of the Cape Fear River. Adjacent to Oak Island is the "Bason" from "6 and 7 Feet deep at Low Water." The "Elizabeth R." and "Dutch Mans Creek" are also indicated on the map.

Three swashes to the west of the channel cut across the shoals "through which small vessels go into the Bason 3 Feet deep at low Water." The bar is "12 Feet at Low Water." Just past the bar begins the channel that roughly follows the present-day course. It winds to the west side of the river in front of "Fort Johnston" then heads northeast until it turns back northwest in front of "Buringtons Creek" (Walden Creek) toward "Brunswick." At the mouth of the Cape Fear River north of "Cape Land," "Marsh Islands" and "Shoals" are labeled. A narrow channel is marked crossing the "Shoals" from the main channel below "Fort Johnston" then back to the channel above the fort. Adjacent to "Fort Johnston" is indicated "The Pilots." Between the fort and "Buringtons Creek" are noted "Bonnets Point," "Deepwater Point," "One Tree Point," and "Dutch Mans." Above "Buringtons Creek" on the west side of the river, "Buringtons Point," "Sturgeon Point," and "Brunswick" are also marked.

A Plan of Wilmington Situate on the East Side of the North East Branch of Cape Fear River Agreeable to the Original Survey, Anonymous, 1750.

The 1750 Plan of Wilmington shows a section of the waterfront from Market Street six blocks north and eight blocks south. East of the Cape Fear River is shown for five blocks. Only Market and Front Streets are labeled. Five or six lots are numbered for each block. The Cape Fear River is indicated as the "North East" and "North West" rivers. The Brunswick River is referred to as the "Thorough-Fare." On the west side of the river, across from Wilmington, "Eagles Island" is marked. Eight small tributaries that flow into the river are depicted but not named. Little other detail is included on the map.

Plan of the Town of Willmington in New Hanover County, North Carolina, C. J. Sauthier, 1769.

In 1769 Sauthier depicted the town plan of Wilmington in a general landscape view along the "Cape Fear River." A vast wooded area surrounds the few town blocks and unnamed streets that make up Wilmington. The general placement of structures within each of the town blocks are shown, but the majority have not been identified. Those buildings or structures referenced include: a "church," "court house," "goal" (jail), "tann yard," and "still house." Numerous roads disect the surrounding vicinity. Some roads indicated lead to the Brunswick Ferry, Sound, and the northeast. Across from Wilmington on "Eagle's Island" a road leads to Cape Fear.

Plan of the Town and Port of Brunswick, in Brunswick County, North Carolina, C. J. Sauthier, 1769.

In the same year that Sauthier produced the map of Wilmington, he also drew a plan view of the town of Brunswick. This map is similar to the other map in showing a general overview of the town and surrounding forests. The town is situated directly along the western shore of the "Cape Fear River." At least two piers or wharfs are shown. Within the partially developed town unlabeled streets and lots have been depicted. The only structures to be named include: a church, courthouse, goal (jail), and Governor Tryon's house and plantation. Several roads lead into the town from all directions.

A Compleat Map of North-Carolina from an Actual Survey, Capt. Collet, 1770.

The Collet map of 1770 illustrates eastern North Carolina. Present-day geographic names within the "Cape Fear" vicinity were by this time established. "Bald head" is shown on the cape with "Oak I" and "Elizabeth R." to the west. The "Middle Ground" shoal is depicted, and for the first time the labeling by name of the "Frying Pan Shoals." The entrance to the "Cape Fear River" is marked as "10 feet bar low Water." In the area marked "MasonBorough," access to the river is shown through "New Inl." On the western side of the river "Fort Johnston" is illustrated. "Brunswick" is also marked on the map with several roads now connecting it with various locations. One road is shown between Brunswick and Fort Johnston. Above Brunswick "Lilliput to the G" and "Old town Cr." are shown. "Snow Pt" is marked below Brunswick. Two sawmills are indicated on the Collet map. "Dr. Green Saw Mill" is located below Wilmington, and "Cap Ellis Saw Mill" is shown above Brunswick. "Mt. Misery" is located north of Eagles Island. The "Ferry house" is illustrated on the eastern shore of the Cape Fear River opposite Brunswick. Names of property owners are indicated along both sides of the Cape Fear River.

An accurate map of North and South Carolina with their Indian frontiers . . . , Henry Mouzon, 1775.
Mouzon's map of 1775 shows most of eastern North and South Carolina. The degree of detail found in other maps is not present in the Mouzon map because of its large scale. "Cape Fear" and the "Frying Pan Shoals" are shown. The entrance to the Cape Fear River to the east of "Middle Swash" is marked showing "10 Feet Bar at Low Water." "New Inlet" is also illustrated. Waterways present on this map, in addition to the Cape Fear River, include the "Elizabeth R," "Lillyput," and "Old Town Cr." Both "Brunswick" and "Wilmington" are noted. An unnamed fort, most likely Fort Johnston, is illustrated south of Brunswick. Several roads are marked, and the "Ferry Ho" (house) is again shown opposite Brunswick. "Dr Greens Saw Mill" below Wilmington and "Saw Mill Capt Ellis" above Brunswick are again noted on this map.

Riviere du Cap Fear de la Bare a Brunswick, Anonymous, 1778.
During the Revolutionary War the French produced this map of the lower Cape Fear River below Brunswick. Shoals shown at the mouth of the river include "the bar," "Middle Ground," and "the Fingers." The "Bassin" south of Oak Island is indicated with only 6 or 7 feet of water. Entrance over the shoals into the basin from the west passes through the "Middle Swash" at a clearance of 5 feet depth. Due south from the "Cape Fear Pitch" are the "Frying Pan" shoals. Only the upper swash from east to west is shown across the shoal. "Fort Johnston" is indicated on the west side of the "Cap Fear Riviere Canal," north of "Dutchmans Creek" and the "Elizabeth Rivere." Between these two tributaries the name "Waldrons" is shown. A small canal is illustrated that passes to the east of Battery Island. Two anchorages are noted opposite Fort Johnston. The promontory noted immediately north of Fort Johnston is labeled "Bonnets Pointe." "Deep Water Pointe" and "One Tree Pointe," respectively, are indicated progressively north. Shown at One Tree Pointe is a structure noted as "Dutchmans."

"Marsh Islands" are depicted at the mouth of the unlabeled Walden Creek; however, a structure identified as "Waldrons" is shown on the south side of the creek. Another "Waldrons" is also located between the Elizabeth River and Dutchmans Creek. Two points are identified between Walden Creek and the town of "Brunswick" on the west side of the river. At "Snow Pointe," just north of Walden creek, "Snow's" house is noted. "Sturgeons Pointe" is shown directly upstream. Brunswick Town has been depicted in plan view, with two structures identified north of the town. One of the structures is identified "Governeur"; the other may be "Nicholas's." Directly across the river from Brunswick, "Merricks Pointe" has been indicated with "Merricks" house located along the river farther upstream from the point. The entrance to the Cape Fear River through "New Inlet" is identified.

A Map of the Seat of War in the Southern Part of Virginia, North Carolina, and the Northern Part of South Carolina, Thomas Kitchin, ca. 1778.
The eastern coast from the "Chesapeak Bay" to South Carolina is illustrated on this Revolutionary War period map. The "C. Fear" vicinity of North Carolina is depicted. "Brunswick" and "Ft. Johnston" are shown on the west side of the "C. Fear R." On the eastern shore across from Brunswick, "Ellis's P." is noted. "Wilmington" is also shown at the confluence of the two branches.

Cape Fear River with Counties Adjacent and the towns of Brunswick and Wilmington Against which Lord Cornwallis detached a Part of his Army the 17th of January last, Anonymous, 1781.
This anonymous map from 1781 shows southeastern North Carolina. Located directly south of "Cape Fear" are "The Frying Pan Shoals." Two cuts through the shoals indicate depths ranging from 5 to 7 feet. At the mouth of the Cape Fear River "the Channel" is marked with an entrance depth of "10 feet." To the east is the "Middle Ground" and "Oak I." Passage into the river proceeds by "Bald Shoals" then turns northeast in front of "Fort Johnson" with "5 feet" of navigable water. Several unnamed creeks, in addition to the "Elizabeth River" and "Old Town Creek," are shown on the west side of the Cape Fear River. "Brunswick" is also marked. On the east side of the river directly across from "Brunswick" a "Ferry" location is indicated. "Wilmington" is shown at the confluence of the "Cape Fear River North West Branch" and the "Cape Fear River North East Branch." Between the two rivers (Point Peter) another "Ferry" location is shown as well as "Mount Misery."

Plan of Wilmington in the Province of North Carolina, Anonymous, ca. 1781.
This Revolutionary War-era map of Wilmington illustrates a partial plan view of the town and adjoining "British Redoubts." Within the "Redoubts," three "Sailors Bty," "Heights," "Grenadiers Quarters," "Marines Quarters," and "Light Companies Quarters" are indicated. Additional British quarters and a hospital location are shown within Wilmington. "Harnetts Road" connects "Harnetts house" on the "North East River" with the town. "Negro Head Point" (Point Peter) occurs at the confluence of the "North East River" and the "North West River." Three British galleys are depicted in the river. A "Ferry" is indicated at the foot of "South Carolina Road" on the west side of the Cape Fear River.

Untitled Plan of Wilmington, J. E. Hyde, 1785.
The Hyde plan map of 1785 drawn for the Commissioners of Wilmington shows a 14-by-5-block area of downtown Wilmington along the "Cape Fear River." North to south street names from Coney to Water streets are labeled and east to west from Front to Fourth streets. Each block is divided into five or six numbered lots. Across from

Wilmington,."The Great Island between the N.E. thoroughfare & NW Rivers called Eagles Island" is shown.

A New Chart of the Coast of North America From Currituck Inlet to Savannah River Comprehending the Coasts of North and South Carolina, Capt. N. Holland, 1794.

The area covered by the Holland map of 1794 includes the coast of North Carolina from the Albemarle Sound to south of Charleston, South Carolina. Extending southeasterly from the "Cape Fear" are the "Cape Fear Shoals." The shoals are described in detail on this map with breaks between segments labeled as "Upper Swash," "Middle Swash," and "Lower Swash." The extreme southern end of the shoal is marked "the Frying Pan" and "breakers," while the segment between the "Lower Swash" and "the Frying Pan" is referred to as "the Spit." Depths in the vicinity of the shoals near "the Frying Pan" tend to be less than 10 feet. The "Upper Swash" and "Lower Swash" have clearance depths of 6 feet "at Low Water," while the "Middle Swash" has only 1 to 3 feet. Text next to the "Upper Swash" reads, "Most of the Sloops from the Northward come through this Swash which is very Discernible in moderate Weather." A description of the composite of the shoals, i.e., shells, gravel, or sand, is also noted for several locations.

The entrance over the bar into the "Cape Fear River" is given as "10 Feet at Low Water." River depths below Wilmington range from 3 to 5 feet, and several shoal areas are present on both sides of the river. From north to south on the western side of the river, "Oldtown Cr.," "Lilyput" Creek, "Brunswick," "Snow Pt," "Snow Cr," "Fort Johnston," and the "Elizabeth R." are shown. The eastern side of the river from north to south has "Smiths Cr.," "Wilmington," a "Saw Mill," the "Ferry" across from Brunswick, and "New Inlet" indicated. "Mt Misery" is located between the branches of the Cape Fear River. A few names of property owners are mentioned on this map.

The State of North Carolina from the best Authorities, &c., Samuel Lewis, 1795.

In 1795 Samuel Lewis produced a map of eastern North Carolina that noted some topographical and structural features within the lower Cape Fear River vicinity. Shown on "Smyths Id" at the mouth of the Cape Fear River is "Bald Head." "Frying Pan Shoals" are noted with two east-west swashes. Entrance to the river was also accomplished through "New Inlet," shown north of "Smyths Id." The towns of "Smithville," "Old Town," and "Brunswick" are depicted on the western shore of the Cape Fear River; "Wilmington" is shown on the eastern shore. Plantations noted in "Brunswick C." include "Clarendon," "Kendal," and "Orton."

A Map of Cape Fear River and its Vicinity from the Frying Pan Shoals to Wilmington, Joshua Potts, 1797.
The lower Cape Fear River is illustrated on this 1797 map by Joshua Potts. The "Western Bar" channel with a depth of 8 feet and the main channel with a depth of approximately 30 feet located east of the "Middle Ground," are shown. The "Smith" house and the "Light House" are indicated on Smith Island. The "Frying Pan Shoals" are noted off "Cape Fear" with two swashes. The northern of the two swashes has a depth of 9 feet and the lower swash 13 feet. "Fort Johnston" is shown at "Smithville." Indicated above Smithville are "Deep Water Pt," "One Tree Pt," and "Snow Pt." "Orton Crek," "Lilliput" creek, and "Old Town Creek" are also shown on the west side of the Cape Fear River. Several anchorages are depicted below Wilmington, at the western end of "New Inlet," and off "Smithville."

Untitled map of Eagles Island and vicinity, Anonymous, ca. late 18th century.
This anonymous map of "Eagles Island" and the vicinity west of the Cape Fear River dates to approximately the late eighteenth century. "Eagles Island" is prominently displayed with a network of roads that generally cross the island from east to west. One road continues on the west side of the "N W River" (Brunswick River), where "Eagans Ferry House" is marked. "Eagles Plantation" is indicated north of "Town Creek." Below "Eagles Island," near the confluence of the rivers, "Clarks Island" is labeled. Farther downstream at the mouth of "Town Creek," the "Pleasant Oaks" plantation and road are shown. Opposite the mouth of the creek is "Large I" (Campbell Island). Near the western shore of the Cape Fear River, below "Town Creek," a third island, "Negro Island," is drawn. On the east side of the Cape Fear River below Wilmington is the "Dram Tree."

A Map of Cape Fear River and its Vicinity from the Frying Pan Shoals to Wilmington by actual Survey, Jonathon Price and John Strother, 1807.
The Price and Strother map of 1807 shows the Lower Cape Fear River below Wilmington. The "Frying Pan Shoals" are well illustrated southeast of "Cape Fear Id." The entrance to the river passes to the east of a large shoal (Middle Ground) where water depths are indicated from 20 to 40 feet as they proceed upstream past the "Light House" and "Smith" property on the cape. The second entrance to the river over the "Western Bar" shows only a navigable depth of "8 feet." On the western shore above the "Elizabeth River" and "Dutchmans Cr." are shown "Fort Johnson," the village of "Smithville," "Deep Water Pt.," "One Tree Pt.," and "Snow Pt." South of "Orton Creek" the town of "Brunswick" is noted. "Old Town" is shown on the north side of "Old Town Creek." Depicted on the eastern side of the Cape Fear River below "Wilmington" are "Jumping Green Run" and "Wildon's Cr" (Bernards Creek). Across from "Brunswick," "Sugar Loaf" is noted for the first time. Passage through "New Inlet" is shown with 14 feet of water. Sailing instructions to enter the river indicate to steer a course of "N. 66 by Federal Point and a white group of Trees!" Anchorages within the Cape Fear River

are marked below "Wilmington," two at the mouth of "Old Town Creek," one at "Snow Pt," and another two off "Fort Johnson."

This First Actual Survey of the State of North Carolina, Jonathon Price and John Strother, 1808.
Price and Strother's map of eastern North Carolina drawn in 1808 shows the Cape Fear River vicinity in considerablly smaller detail than on their 1807 map. At "Cape Fear" the "Frying Pan" shoals are marked. On the western promontory of "Smith I" the "Light H" tower is drawn at the entrance to the Cape Fear River. Also labeled at this location is "Seat of Ge[n]l. Smith" and "Sea Gull." North of "Dutchmans C" the village of "Smithville" is shown. Along the western shore of the river in "Brunswick County," "Brunswick," "Orton C," and "Old Town C." are indicated. "Mt. Misery" is shown between the rivers. Below "Wilmington" the tributary "Jumping Run" is noted. Illustrated at "New Inlet" is the promontory "Federal Point."

Untitled map, Mr. Potter, Esq., ca. 1814.
A map of the Cape Fear River entrance and western end of Bald Head Island were sketched about 1814 by a Mr. Potter. The "Middle Ground" and "Channell" are crudely shown between the eastern end of "Oak Island" and Bald Head Island. Near the entrance to the river the "Breaker head" and "Bar" are illustrated. To the east of the main channel the shoals, or "Fingers," have been indicated. Shown near the western end of Bald Head Island, below "Cape Creek," are the "Ship yard," "New light" (Old Baldy), and "Sea Castle." Sea Castle was the summer residence of Benjamin Smith, great-grandson of Landgrave Thomas Smith, for whom the island was later named. Located near the Southwestern shoreline, or "Sea Beach" of the island, are "S. Springs house" (house of Sedgwick Springs, lighthouse keeper) and the "old light house."

A Diagram of the Entrances of Cape Fear River & the Frying Pan Shoals, United States Topographical Bureau, ca. 1820.
This map, drawn around 1820 by the U.S. Topographical Bureau, shows the entrance to the Cape Fear River and the Frying Pan Shoals. Several breakers south of "Cape Fear" and the banks, exposed at low water, are indicated on the map. In the area known as "The fingers," near the entrance to the river, only 3 to 5 feet of water cover the bank. At "The Bar" a "buoy" marks the "Ship Channel" west of "Middle Ground" and less than 3 feet of water. The "Old ship Channel" to the east of "Middle Ground" is marked as nearly filled in. On the Middle Ground shoal the "stern post of a wreck" is indicated. The "Lighthouse" at "Bald Head" is also shown.

Survey of the Cape Fear River from the Upper to the Lower Flats, Hamilton Fulton, 1823.

In 1823 Hamilton Fulton, hired by the Board of Internal Improvement, made a map showing the Upper and Lower Flats around "Campbell's Island" near the mouth of "Town Creek." Both shorelines of the Cape Fear River are shown with transects across the river showing water depths. On the western shore, features shown from north to south include "McKenzie's," "Sand Hill House," "Rice Machine," "The Oaks," "Town Creek," and "Colonel Corvan's." Just south of the "Brunswick River" are shown "Read's Creek" and "Campbell's Island" canal. An "embankment" is illustrated extending from "Eagles Island" to the northern section of "Clark's Island."

On the eastern shore of the Cape Fear River opposite Eagle's Island, the "Dram Tree" is illustrated. Slightly above Clark's Island on the eastern side of the river is "Mr. Waddell's House." "Reedy Point" is placed opposite "Read's Creek," and two "Salt Houses" are shown opposite "Campbell's Island." A "Wreck" is indicated on the map northeast of "Campbell's Island" in approximately 3 feet of water. Water depths to the west of "Campbell's Island" are shown ranging from 13 to 19 feet, with depths to the east of the island being much shallower. "Town Creek Shoal" is located north of "Campbell's Island," and "Nutts Shoal" is marked below the island. A "Salt House" is shown on the eastern shore southeast of Campbell's Island. An "Embankment" connects the island to the west side of the river in front of "The Oaks" plantation.

Cape Fear River, N.C. Below the Town of Wilmington, United States Army Corps of Engineers, 1827.

The Corps of Engineers map drawn in 1827 shows sections of the Cape Fear River above "New Inlet" to "Wilmington." Shorelines are illustrated with coverage in either wooded, marsh, diked, or agricultural areas. River depths and conditions are shown in addition to brief mention of topographical features. "Snow's Point" is shown across the river from "New Inlet" and "Federal Point." In midriver "Snow's Marsh" is illustrated. Other sections of the map depict the "light House" on "Bald Head," as well as "Smithville," "Fort Johnson," and "Deep Water Point" on the western shore. "Battery" and "Oak Island" are marked near the entrance to the river. Farther upriver on the western side, "Orton Point" and "Brunswick Point" are shown south of "Liliput" and "Orton" Creeks. "Campbell's Island" is shown at the mouth of "Town Creek." The embankment between the western shore and the island is also illustrated. On the eastern side of the river "Barnham Creek" is shown. "Clarks Id" is indicated north of the "Brunswick River." North of the Brunswick River the tributaries "Redmans Cr" and "Aligator Cr" are shown on Eagles Island. On the eastern shore across from the Brunswick River "Reedy Point" is labeled.

A New Map of The State of North Carolina, John Mac Rae and Robert Brazier, 1833.

Mac Rae and Brazier's 1833 map of the state of North Carolina shows great detail considering the scale. The "Cape Fear" is shown, as well as "Bald Head" on "Smith's I." The "Light House" is also noted. At "Federal Point," "New Inlet" is depicted, while on the western side of the Cape Fear River the towns of "Brunswick" and "Smithville" are marked. Tributaries on the western shore that flow into the Cape Fear River include from north to south: "Mallory Cr," "Town Cr," "Allen's Cr," "Liliput Cr," and "Orton Cr." Dutchmans Creek, although unnamed, and the "Elizabeth River" are also illustrated. "Eagles Is" is illustrated across from "Wilmington," and below the city on the eastern shore of the Cape Fear River, "Barrum Cr" and the "D Tree" are shown. Ferries are marked over the Brunswick and Cape Fear Rivers at Eagles Island.

Cape Fear River North Carolina, United States Army Corps of Engineers, 1839.

The 1839 map of the lower Cape Fear River made under the direction of Lt. James Glynn shows the navigable channel. Numerous water depths are given along the main part of the river. Shorelines are illustrated with the type of vegetation or land use present. Several jetties are pictured on the map on both sides of the river. One jetty connects the western shore to "Campbell's Island."

Plan of Wilmington North Carolina as extended by Act of Legislature 1848, A. C. Dickinson, ca. 1848.

The Dickinson plan view of Wilmington provides little detailed information. City streets on both sides of the "Cape Fear River" are indicated by name. At the confluence of the "North East" River and the "North West or Thoroughfare" River, "Point Peter" is marked. The Brunswick River is not shown. River depths are indicated in front of Wilmington. The "Wilmington & Raleigh Rail Road" appears on this map and terminates at the foot of "North Water" Street. On the west side of the Cape Fear the "Wilmington & Manchester Rail Road" terminates at the foot of "Gum" Street on the North West Cape Fear River.

Sketch of Frying Pan Shoals and Cape Fear River, United States Coast Survey, 1851.

Frying Pan shoals have been illustrated in this 1851 U.S. Coast Survey map. The "Frying Pan Shoals" located off "Cape Fear" are shown with "Breakers" and water depth measurements. "Bald Head Shoal," "Marshall Shoal," and "Reeper Shoal" are noted near "Bald Head Point" on "Smith's Island." The "High Lt." and "Low Lt." are illustrated west of "Fort Caswell" on "Oak Island." "Fort Johnston" is noted at "Smithville." At "Price's Creek" two lighthouses are shown, as well as the "Light Ship" southwest of "Zeek's I." The lighthouse and beacon on "Federal Pt." are indicated for navigation through "New Inlet."

Preliminary Chart of the Entrances to Cape Fear River and New Inlet North Carolina, United States Coast Survey, 1853.

In 1853 the U.S. Coast Survey mapped the entrances to the Cape Fear River and New Inlet. This detailed map lists several historical features near the study area. "Cape Fear" and "Bald Head Pt" are shown on "Smith's Island." The "Main Ship Channel" which leads into the Cape Fear River, and the "Western Bar Channel" are indicated by dashed lines that run north then northeast among the numerous shoals near Smith and "Oak Island." Shoals labeled by name west of the ship channel through the bar include from north to south: "Burch Shoal," "Reeper Shoal," and "Marshall Shoal." "Bald Head Shoal" is shown on the western side of the channel off "Bald Head Pt." The "Bald Head Lt." appears on the map just north of Bald Head Point. Navigational beacons are shown on the southern shore of "Oak Island" where the "High Light" and "Low Light" are indicated. "Fort Caswell" is shown on the extreme eastern end of Oak Island.

After crossing the bar, the river channel turns northwest between Oak and Smith's Islands and continues upstream past "Elizabeth Creek" and "Dutchman's Creek" to the west before turning to the northeast. Below "Smithville" the channel then turns northeast and continues west of "Battery I," "Striking I," and "Muddy Slue." Above "Smithville" the channel is no longer marked. North of "Price's Creek," on the west side of the river, the map indicates the presence of "Bug Light" and "Horseshoe" shoal. "New Inlet" into the Cape Fear River is drawn between "Federal Point" and "Zeek's I." A "Beacon" and "Federal Pt. Light" warn of several "breakers" near the entrance.

The following sailing instructions into the Cape Fear River by way of the Main Ship Channel and Western Bar appear on the 1853 Coast Survey map:

> To enter Cape Fear River by Main Ship Channel. When in 5 fathoms water Bald Head Light bears N. by E ¼ E. (N.14½° E) steer for it until well up with the Bar. Bald Head Point (a sand spit distinctly seen) is in range with Mr. Miller's house, (the largest and most prominent house in Smithville about ¼ of a mile to the Northward and Eastward of the Flag staff) keep this range which will near Marshall Shoal and strike the outer buoy, which leave on the port hand. Having passed the buoy steer NNW ¼ W (N.27½° W) passing the middle buoy on the port and the inner buoy on the starboard hand until Fort Johnston Flag staff is on with the Eastern end of the Citadel in Fort Caswell; the course is then on this range, due North until Bald Head Light is in range with Bald Head Point; then N.E. ¾ N (N.37° E.) until Bald Head Light bears S.S.E. (S.22° E.) then keeping this bearing steer N.N.W. (N.22° W). Having passed Fort Caswell wharf bring the inner end of it on with the lone tree on Bald Head Bluff, which will clear the spit of Battery Island. Having cleared the point of Battery Island, and opened the river, anchor at pleasure in mid-channel abreast

of Smithville. The shoalest water in crossing the Bar is 8 feet at mean low water near the middle buoy.

Western Bar Channel. When in 4 fathoms water bring the High & Low Lts. on Oak I. in range and keep that range (N.35½ degrees E.) passing either side of the buoy, until Bald Head Light bears E. S. E. (S.67½° E.) and Cape Fear is open about 2 ships length to the Southward of the South point of Bald Head Point: when steer E ½ S. (E.5° S.) or nearly parallel with the beach, until Bald Head Light bears S.E. by E ¼ E. (S.58° E.) and the Citadel in Fort Caswell N. by E. ¼ E. (N.15½° E.) when steer N.E. ¼ E. (N.48½° E.) until reaching 5 fathoms water; when Bald Head Light bears S.S.E. ¼ E.) steer N.N.W. ¼ W. (N.24¾° W.) as before directed.

Plan of Wilmington North Carolina, L.C. Turner, 1856.

Turner's 1856 Plan of Wilmington covers a considerably larger area than previous plans of the town. On the east side of the river, blocks divided into lots cover from Ashe Avenue at "Smith's Creek" south to Marsteller Avenue. From the Cape Fear River eastward, Water Street to Thirteenth Street are shown. The Turner map represents streets and town blocks laid out on the west side of the river. Thirteen named, but short, streets are listed. Also illustrated on the western shore is the "Wilmington & Manchester Rail-Road" that curves along the "North West" branch of the Cape Fear River. The "Wilmington & Weldon Rail-Road" is shown entering "Wilmington" on the eastern shore, and four tracks terminate at the water's edge between "Campbell" and "Red Cross" Avenues. River depths depicted are the same as those from the 1851 U.S. Coast Survey map. Some shoals are indicated where the most shallow depths occur at the mouth of the "North East" branch directly in front of the rail line terminus. Between the two branches of the river, "Point Peter" is marked.

Preliminary Chart of Lower Part of Cape Fear River North Carolina From Near Federal Point to Wilmington, United States Coast Survey, 1856.

The U.S. Coast Survey map of 1856 shows the Cape Fear River from Wilmington to below the "Ruins of Old Brunswick" town. Shorelines on both sides of the Cape Fear River are illustrated with timber, marshes, and diked areas. Above "Old Brunswick" on the western side of the river, in the vicinity of "Lilyput Cr" and "Orton Cr," are several large diked areas. At "Orton Pt" the "Lt. Ho." (lighthouse) is marked. "Sugar Loaf" hill is shown on the eastern shore across from "Old Brunswick." Located just below "Old Town Cr" the tributary "Sand Hill Cr" is now indicated. "Campbell I or Big I" is shown at the mouth of this creek. "Mallory Cr" is labeled north of "Old Town Creek." Several diked fields and "Redmond Creek" are visible on "Eagle's Island" at the confluence of the two branches of the Cape Fear River. "Clark's I" is shown off the southeastern shore of "Eagle's Island." "Point Peter" is also labeled.

South of "Wilmington," on the eastern shore, "Greenfield Cr" is represented. "Dram Tree Pt" is also indicated on the map; however, the "Dram Tree" is shown located slightly north of the point and within shallow water along the river. A "Beacon" is marked at both of these locations. A "wreck" is depicted between the "Dram Tree" and "Dram Tree Pt," while another "wreck" is shown just below the point. At an unnamed point located south of "Dram Tree Pt," a "Hospital" is represented. Two other tributaries on the eastern side of the Cape Fear River are labeled: "Barnard's Cr" and "Motts Cr." Jetties, buoys, shoals, and water depths are marked for the river.

Comparative Chart of Cape Fear River Entrances North Carolina, United States Coast Survey, 1857.

This 1857 map drawn by the U.S. Coast Survey compared two earlier hydrographic surveys done in 1851 and 1856. The results of the dynamic nature of the sediments at the two entrances to the Cape Fear River can be seen on this map. Considerable change in the lines shown for the water depths at 6, 12, and 18 feet are shown, as well as some modification in the shorelines for "Smith's Island," "Zeek's I," and "Federal Point." Buoys mark the presence of "Reeper Shoal," "Marshall Shoal," and "Bald Head Shoal" at the mouth of the Cape Fear River. Navigational lights are represented on Federal Point ("Federal Point Lt."), Smith's Island ("Bald Head Light") and Oak Island ("Tall Light" and "Low Light").

Preliminary Chart of Frying Pan Shoals and Entrances to Cape Fear River North Carolina, United States Coast Survey, 1857.

This U.S. Coast Survey map of 1857 illustrates the mouth of the Cape Fear River. The location of "Bald Head" and "Cape Fear" are again indicated on "Smith's Island," along with the presence of the lighthouse. "Cape Creek" and "Buzzard or Oyster Bay" are shown toward the northern side of the island. Southwest of "Bald Head" are "Bald Head Shoal," "Reeper Shoal," "Marshall Shoal," and "The Fingers." Text shown on the map states that "Marshal Shoal has connected with The Fingers, and has obliterated the old channel. The buoys have been removed." Entrance to the Cape Fear River passed through the "Western Bar Channel" between "Oak Island" and the "Middle Ground," or through "New Inlet." The Western Bar Channel passed over the bar on a northeast course in front of the high and low lights on Oak Island, then went southeast of "Ft. Caswell, turned northwest toward "Smithville" past the "Elizabeth River." North of "Smithville," "Deep Water Pt." and the lighthouse at "Price's Cr." are depicted. "Battery I," "Striking I," and "Muddy Slue" are illustrated among the marshes and shoals east of Smithville.

"New Inlet" provided the alternative passage into the Cape Fear River. The channel marked on this 1857 map approached "Federal Point" below the lighthouse on a northwest course. It passed between "Federal Pt. Shoal" and "Caroline Shoal," then turned southwest and passed between "Federal Point" and "Caroline Shoal." The channel continued past "Zeek's I," then turned north at "No. 7 Light Boat," which marked the dangers of "Horse Shoe" shoal. The map indicates that the channel continued on the western side of the river toward Wilmington past the "Oyster Beds," "Walden Cr," and "Reeves' Pt."

Preliminary Chart of Frying Pan Shoals and Entrances to Cape Fear River North Carolina, United States Coast Survey, 1858.
The Cape Fear vicinity from "Wilmington" to the southern edge of the "Frying Pan Shoals" is depicted on this 1858 chart. At the entrance to the Cape Fear River, "Bald Head Pt." on "Smith's Island" and "Fort Caswell" on "Oak Island" are shown. "Deep Water Pt.," "Walden Cr.," "Reeves Pt.," "Milmor's Pt.," and "Orton Pt." are indicated on the western shore of the river above "Smithville." "Sugar Loaf Pt." and "Sugar Loaf Hill" are noted on the eastern shore opposite "Milmor's Pt." "Fort Fisher" is shown on "Federal Point" at "New Inlet," indicating that some of the features may have been added to the map at a later date.

Comparative Chart of Cape Fear River Bars North Carolina, United States Coast Survey, 1859.
The U.S. Coast Survey compiled this map of the Cape Fear River bars to compare hydrographic surveys completed in 1851 and 1858. Between "Smith's Island" and "Oak Island" considerable change has been noted at the shore line and 6, 12, and 18 foot water depths. Located between the "Middle Ground" and "Bald Head" is the "Pocket" shoal. "Reapers Shoal," "Marshall Shoal," "Bald Head Shoal," and the "Breakers" are again mentioned. The "Rip Channel," or Western Bar Channel, is shown crossing the bar along the south shore of Oak Island. "Ft. Caswell" and the High and Low lighthouses are also indicated on the island.

Comparative Chart of New Inlet Bar Northern Entrance of Cape Fear River North Carolina, United States Coast Survey, 1859.
The New Inlet Bar map drawn by the U.S. Coast Survey in 1859 shows comparative hydrographic surveys conducted in 1851 and 1858. Noticeable changes in the shoreline and water depths at the Inlet are indicated. The "Middle Ground," "Breakers," and the "Bar" delineate the eastern entrance to the Cape Fear River, and their presence is forewarned by the lighthouse on Federal Point. New Inlet channel is shown to pass between "Federal Point" and "Carolina Shoal" just north of "Zeek's Island." "Constant and Heavy Breakers" mark the southern extent of the channel. "Zeek's I. Flat" forms the extreme western end of the "Carolina Shoal."

Bird's Eye View of North and South Carolina and Part of Georgia, John Bachman, 1861.

Bachman's Bird's Eye view of the North Carolina coast at the beginning of the Civil War presents a limited, although different, perspective of the Cape Fear River vicinity. "Cape Fear" is shown on "Smiths I," while the town of "Smithville" is illustrated at the mouth of the river. "Fort Johnson," located above "Smithville" on the western side of the river, is also depicted. "Wilmington" has been drawn to show the considerable size of its population.

J. H. Colton's Topographical Map of North and South Carolina. A Large Portion of Georgia & Part of Adjoining States, J. H. Colton, 1861.

The extensively detailed map by J. H. Colton in 1861 depicts the lower Cape Fear River area on a larger scale as one of four insets to the map. The entrance to the "Cape Fear River" is again shown to pass between "Smiths I." and "Oak I." Both the "Frying Pan Shoals" and unnamed "Shoals" southeast of "Bald Hd" are marked. The "Western Channel" through the bar is located in front of "Ft. Caswell." On the "Brunswick" county side of the Cape Fear, "Ft. Johnson" is represented at "Smithville." The tributaries of "Orton Cr.," "Allens Cr.," and "Town Cr." are portrayed on the western side of the river. Between the mouth of the river and "New Inlet" the islands of "Battery I," "Zeeks I," and "Marsh I." are drawn. One "light Ho." is shown on "Federal Pt," while another can be seen on Oak Island. At "Wilmington" the Wilmington and Weldon Rail Road is pictured as far north as Smith Creek. The Wilmington & Manchester Rail Road is illustrated crossing the Brunswick River and "Eagles I."

Chart of the Obstructions in the Cape Fear & Brunswick Rivers and the Batteries Commanding Them, Confederate States Army Engineers, 1863.

This Confederate States Army Engineers map drawn in 1863 shows the obstructions and fortifications just south of Wilmington at the mouth of the "Brunswick River." At the confluence of the Brunswick and Cape Fear Rivers "Eagle's Island" and "Clark's Island" are drawn. Fortifications that are illustrated below Wilmington on the east side of the "Cape Fear River" include from north to south: "Ft. Strong," "Cannoneer By," "Ft. French," "Fort Meares," and "Fort Hill." Located within the Cape Fear River in front of "Ft. French" is a "Floating Gate." Extending from "Clark's Island" almost to the "Floating Gate" are the "Floating Chain Obstructions." Water depth at this obstruction shows 40 feet. A line of "Sawyers" crosses the main channel in front of "Fort Meares." An additional line of "Sawyers" block the entrance to the "Brunswick River," immediately followed upstream by two sets of "pilings." A "Jetty" that extends across one-third of the river is shown south of the "Brunswick River." Two other jetties, forming a V-shape, extend from the eastern shore into the river below "Fort Hill." Water depths are generally less than 20 feet within the river, with extensive shoaling illustrated along the eastern shore, south of the Brunswick River, and between Eagles and Clark's Islands.

Gen. Braxton Bragg submitted a later version of this map with his February 7, 1865, report.

Topographical Map showing the Fortifications & Roads in the vicinity of the Cape Fear, Confederate States Army Engineers, 1863.

The 1863 map by the Confederate States Army Engineers covers the area from above Wilmington to the mouth of the Cape Fear River. A network of roads and rail lines traverse the vicinity. At the mouth of the Cape Fear River "Smith's Isd" and "Oak Isd" are marked, with "Fort Caswell" depicted at the eastern end of Oak Island. Both "Battery Isd" and "Striking Isd" are labeled opposite "Smithville." The navigable channel is shown with depths in the location of the Western Channel. After rounding Oak Island and passing in front of Smithville, the channel generally follows the western side of the Cape Fear River up to Wilmington. Water depths average less than 20 feet with some spots in the river as great as 33 feet. Jetties are portrayed below Wilmington. Tributaries shown on the western side of the river above "Smithville" include from south to north: "Price Creek," "Walden Cr," "Orton Creek," "Lilliput Creek," "Sand Hill Cr," and "Town Creek." Located in the Cape Fear River between the mouth of "Sand Hill Cr" on the west shore and "Motts Creek" on the east shore is "Campbell Isd."

Entrance to the Cape Fear River through "New Inlet" occurs opposite "Walden Cr." Water depths within the channel range from 8 to 27 feet. "Zeeks Isd" is represented southwest of the inlet. "Fort Fisher" and "Camp Wyott" (Camp Wyatt) are shown on the Federal Point access road. "Fort St. Phillip" is shown on the western side of the river below "Orton Creek" near the old Brunswick site. "Fort Strong," "Cannoneer By," "Fort French," "Fort Meares," "Fort Hill," and "Obstructions" are indicated below "Wilmington" on the eastern shore of the Cape Fear River opposite the mouth of the "Brunswick River." Obstructions are also displayed at the mouth of the Brunswick River.

Chart Accompanying Project For Effectually Closing Cape Fear River and the Port of Wilmington, N.C. to Blockade Runners, United States Army Corps of Engineers, 1864.

This Civil War map, drawn to accompany the project of Maj. Gen. Q. A. Gillmore, is one of several military maps included in The Official Atlas of the Civil War. The entrances to the Cape Fear River are illustrated on this chart and reflect much of the same topographical information as other contemporary maps. Some items of note include the presence of a "wreck" near shore southeast of "Bald Head" and a line of "obstructions" across the main channel at "Fort Caswell." The small "Burch Shoal" is shown in the area commonly known as the Middle Ground. The "Main Ship Channel" is illustrated to the east of this shoal, while the "Western Bar Channel" is shown to the west. Farther up river the "Light Boat" is illustrated between "Zeek's Island" and "Horse Shoe" shoal.

Map of Parts of Brunswick & New Hanover Counties Showing the Approaches to Wilmington, N.C., Confederate States Army Engineers, 1864.
In 1864 this map of the Lower Cape Fear River vicinity was produced under the direction of Capt. James of the Confederate States Army Engineers. Along sections of the "Cape Fear River" the "main channel" is indicated. Shown on "Smiths I.," within the vicinity of Bald Head, are "Ft Holmes" and the "Light Ho." On the opposite side of the river on Oak Island, "Ft Caswell," "Ft Shaw," and "Ft Campbell" are indicated. "Ft Pender" is shown at "Smithville" as well as the location of a "Saw Mill" and the "Signal Sta." "Deepwater" Point along with the "Signal Sta" and "Light House" at Price's Creek are marked above Smithville. On the north side of Price's Creek the name "Burke" appears. Approximately halfway between Price's Creek and "Walden's Creek" is shown the name "W. McCrackin." Within the river directly opposite this location the "Wreck of Raleigh" is indicated. North of "Waldens Creek" are shown "Reeves Pt," "Ft Lamb," and "Robins Pt." A "Landing" is indicated at the mouth of a "Canal" that connects with "Orton Pond." The "Ortons" Point "Light Ho" and the "Lt. Ho." on "Big Island" are also marked.

"Wilmington" has been illustrated at the confluence of the "North West River" and the "North East River." On the eastern side of the Cape Fear River opposite, the mouth of the "Brunswick River," "Fort Stoke," "Fort Lee," "Fort Campbell," and "Fort Mears" are shown. On the eastern shore opposite Old Town Creek, an "Old Salt Landing of 1812" is indicated. "Sugar Loaf" is noted across from "Old Brunswick," and "Craig Wharf" is depicted opposite "Robins Pt." At the extreme southern end of "Confederate Point" are located "Ft. Fisher" and "Mound By." "New Inlet" is illustrated between Federal Point and "Zekes I."

Map of the vicinity of Wilmington, Confederate States Army Engineers, 1864.
The Confederate States Army Engineers mapped in detail in 1864 an area east of the Cape Fear River to the sounds below "Wilmington" as far as "Mott's Creek." A vast network of roads dissected the region. Along the eastern shore of the Cape Fear River the location of "Ft. Strong," "Ft. Lee," "Camp Lee," "Ft. Campbell," and "Ft. Meares" are indicated. Property owners indicated on the map within the vicinity of the forts are "Tizor," "Simpson," and "Wadd." The "Hilton Ferry" is shown to cross the Northeast Cape Fear above Wilmington.

Copy of a Map of Cape Fear River and adjoining Coast of North Carolina made from Material furnished by the Coast Survey (April 7, 1863), United States Coast Survey, 1864.
This Coast Survey map drawn in 1864 for the U.S. Navy Department illustrates the Lower Cape Fear River vicinity. The "Frying Pan Shoals" south of "Cape Fear," as well as "Reeper Shoal," "Bald Head Shoal," "Middle Ground," and "The Fingers" south and west of "Bald Head" are depicted. The main channel appears to be closed by the joining of the shoals, leaving passage into the river through the "Western Bar Channel."

"Obstructions" of "Heavy Chain" and "Loaded Cribs" partially block the 18-foot channel at the eastern end of "Oak Island." On Oak Island the "Old Light Ho." and "Fort Caswell" are noted, and on "Smith's Island" the "Lighthouse" is shown. Shoals with only 6 feet of water depth occur south of "Battery I." and "Striking I." The location of "Fort Johnston," including the "Encampment," "Breastworks," and "Salt Works," is indicated at "Smithville." Northeast of Smithville at "Deep Water Pt." another line of "obstructions" crosses the main channel indicated by 6, 12 and 18 foot depths. Above Deep Water Point the lighthouse is shown at "Price's Cr."

Entrance into the Cape Fear River by way of "New Inlet" is marked between "Federal Point" and "Zeek's Island." Water depth along the northern edge of "Carolina Shoal" is shown as only 6 feet. "Sunken Hulks" in the "Main Channel" of the Cape Fear River are indicated to the west of "Zeek's Island." The "Lighthouse" is illustrated on "Federal Point," and offshore to the east is noted the "Wreck of the English Steamer *Modern Greece*." Several "Marsh Islands" and shoals are located at the mouth of "Walden Cr." up to "Reeve's Pt." "Obstructions" are again placed across the river channel at "Old Brunswick." A "Jetty" that extends to "Sugar Loaf" on the eastern shore and "Chain & Cribs Ready To Sink Across the Channel" are present opposite the "Encampment" and "Masked Batteries."

On "Campbell or Big Isd." the "Light Ho." and a "Battery" are noted. Above the mouth of the "Brunswick River" a line of "Sunken Cribs" extends across the Cape Fear River to the eastern shore where a "Battery" and "Hospital" are indicated. Slightly farther upstream at "Dram Tree Point," a "Casemated Battery" is illustrated. It occurs south of the "Dram Tree" illustrated just off the shoreline. Within "Wilmington" are noted the location of "Berry's Ship Yard" (Beery) on "Eagles Island" and "Cassidy's Shipyard" near the southern section of the city. The "Kidde & Martin Mill" is shown south of the city near the "Arsenal" for "Swords & Bayonets." Additional military installations are illustrated within and to the east of Wilmington. Above the city on the east side of the river three mills and two piers are depicted.

Map of The Country adjacent to Smithville, Confederate States Army Engineers, 1864.

This 1864 map depicts the western side of the Cape Fear River from just north of "Walden Creek" to Oak Island. On the north side of "Prices Creek" the "Signal Station" and "Light House" are noted. A "Salt Works" is shown below Price's Creek. The "Signal Station," "Fort Pender," and a "Saw Mill" are indicated at "Smithville." "Fort Caswell" and "Fort Campbell" are represented on Oak Island.

Map of "Bald-Head" & Cape Fear, Confederate States Army Engineers, 1864.

In 1864 Confederate Engineers' added features to this 1834 map that shows Smith's Island as far north as an unnamed stream that dissects the island. Cape Fear is illustrated as a barren southeast peninsula. No indication of vegetation or man-made structures are evident on the cape. Bald Head is shown as the southwestern corner of Smith's Island. "Ft. Holmes" is illustrated in a nearly cleared area with trees or dense vegetation northeast of the fortifications. The Bald Head "Lighthouse," a "Horse Pond," and a cleared area of land marked "T.M. Thompson" are visible on the map northeast of "Ft. Holmes." A brief network labeled the "Artillery Road" connects the places indicated on the map with other natural or military locations farther inland and on the southern shoreline. A "Proposed Road" extends from the "lighthouse" to the eastern shoreline, while another runs along the southern shoreline. South of the stream two cleared areas with structures are marked "Todd" and "Bowers."

Chart of the Obstructions in the Cape Fear and Brunswick Rivers and the Batteries Commanding Them, Confederate States Army Engineers, 1865.

In 1865 Confederate General Braxton Bragg submitted this detailed map of the obstructions and defenses below Wilmington and at the mouth of the Brunswick River. Forts shown on the eastern shore of the "Cape Fear River," as illustrated from north to south, are "Fort Davis," "Fort Lee," "Fort Campbell," and "Fort Meares." Located at the confluence of the "Brunswick River" and the "Cape Fear River" are "Eagle's Island" and "Clark's Island." A "Floating chain obstruction" runs from the northern end of "Clark's Island" across the Cape Fear to just in front of "Fort Lee." The obstruction ends before reaching a "Floating Gate" at "Fort Lee." On the upstream side of the "Floating chain obstruction, near the northern end of "Clark's Island," the wreck of the "*North Heath*" is shown.

"Fort Campbell" appears to be the largest of the four forts. At least three lines of "Sawyers" and "Chevaux de Frise" block the channel in front of "Fort Campbell." The wrecks of the "*Arctic*" and "*Yadkin*" also form part of the obstruction. Water depths around the obstructions range from 9 to 19 feet. At the mouth of the "Brunswick River" two lines of "Sawyers," "(Round) Piling," and "(Square) Piling 12 x 12" block the entrance progressively upriver near the mouth. Jetties extending to the edges of the channel are depicted on both sides of the Cape Fear River below the mouth of the Brunswick River.

Plan of the Attacks by Gun-Boats on Forts Strong and Lee, Cape Fear River, N.C., United States Army Corps of Engineers, 1865.

Forts Strong and Lee, located below Wilmington, are shown on this 1865 map as they appear under fire on February 20-21, 1865. The two forts are situated on the east shore of the Cape Fear River across from the mouth of the Brunswick River. A line of "obstructions spike heads" extends across the Cape Fear from one of the forts to the opposite shore. On the downstream side of the obstructions, near midchannel, two "wrecks" are indicated. Jetties and "Flats" within the vicinity of the forts are also represented on this map.

Sketch of Vicinity of Fort Fisher and Plan of Fort Fisher Carried By Assault by the U.S. Forces, United States Army Corps of Engineers, 1865.
Maj. Gen. A. H. Terry used this plan of Fort Fisher and a sketch of the surrounding vicinity in 1865. The sketch and plan include the lower portion of Federal Point showing the location of the "Hospital," "Headquarters," "Commissary," "Mound Battery," "Ft. Buchanan," and additional earthen structures. On the Atlantic Ocean side of Federal Point the "Wreck of the Powder Vessel" is indicated offshore from the fort. Along the Cape Fear River side only the presence of a "Wharf" is noted.

The Capture of Fort Fisher, The New York Herald, January 18, 1865.
A map titled "The Capture of Fort Fisher" appeared in The New York Herald on January 18, 1865, with a number of geographical and structural features noted. Rail lines indicated at "Wilmington" include the "Wil'[ming]ton & Weldon R.R." the "Wilmington Charlotte & Rutherford R.R." and the "Wilmington & Manchester R.R." "Fort St Philip" supporting "nine guns" is depicted on the southern tip of "Eagles Island." On the east side of the "Cape Fear River" below Wilmington, "Fort French (Iron Clad with T Iron)" is shown with the "Obstructions" extending from the eastern shore to Eagles Island. The "Light House," "Water Batteries," "Stag Park," and "Barrum Creek" (Barnards Creek), are shown below Fort French. An additional "Light House" is illustrated on Campbell Island. Tributaries on the western side of the river include from north to south, "Mallary Creek," "Smith Town Creek," "Allens Creek," and "Orton Creek." Shown between "Orton Creek" and "Smithville" is the "Quarantine Fort." Additional fortifications shown on the map include "Fort Fisher" and the surrounding batteries on "Federal Point," "Fort Johnson" at "Smithville," and "Fort Caswell" on "Oak Island." "Wrecks" are noted near the southern shore of Oak Island.

Untitled North Carolina Map, United States Coast Survey, 1865.
This untitled 1865 map of North Carolina drawn by the U.S. Coast Survey depicts the Cape Fear River vicinity with limited detail. "Cape Fear" is noted on "Smith's Id." along with "Bald Head Pt." On "Oak Id." the presence of "Ft. Caswell" is shown. "Fort Fisher" is marked at "Federal Pt." Tributaries to the "Cape Fear River" located on the western shore include from south to north: "Elizabeth R.," "Walden Cr.," "Orton Cr.," "Lilliput Cr.," and "Old Town Cr." South of "Wilmington" on the eastern shore the map denotes a "Hospital," "Barnard's Cr.," and "Sugar Loaf."

Cape Fear River Entrances — New Inlet N.C., United States Coast Survey, 1865.
The New Inlet entrance to the Cape Fear River is shown on this 1865 U.S. Coast Survey map. Located on "Federal Point" north of "New Inlet" are "Federal Point Lt.," "West Light," "E. Light," and "Mound Light." All of these navigational markers are portrayed on the eastern side of Federal Point. "Breakers" and low-water marsh areas denote the southern limit of "New Inlet." Water depths are given for the inlet, ocean, and a portion of the river from "Deep Water Pt. Battery" upstream to "Reeves" point.

The "Range Lts" and "Bug Lts" are also illustrated at "Prices' Creek." At the ocean entrance to "New Inlet" the wrecks of the "*Aster*," "*Condor*," one labeled "Paddle," and an unidentified "Wreck" are marked. Two other wrecks are shown within the Cape Fear River. The "Wreck of Str *Raleigh*" occurs near midchannel in the river directly west of New Inlet. The wreck of the "*Hetzel*" is noted on the eastern side of the river at the anchorages northeast of Prices' Creek.

Entrances to Cape Fear River North Carolina, United States Coast Survey, 1866.
This U.S. Coast Survey map of 1866 is based upon the preliminary map made in 1857 and illustrates the mouth of the Cape Fear River. The location of "Bald Head" and "Cape Fear" are indicated on "Smith's Island." The lighthouse is not shown on this version. "Cape Creek" and "Buzzard or Oyster Bay" are shown toward the northern side of the island. Represented southwest of "Bald Head" are "Bald Head Shoal," "Reeper Shoal," and "The Fingers." Marshall Shoal has been omitted from this version. The "Western Bar Channel" is shown between "Oak Island" and the "Middle Ground." The Western Bar Channel passed through the bar on a northeast course in front of the "Range Lights" on Oak Island. "Ft. Caswell" is marked on the eastern end of the island. Noted on the map are the "Elizabeth River," "Smithville," "Deep Water Pt.," and "Price's Cr." Battery and Striking Islands are drawn but unlabeled. "Muddy Slue" is noted among the marsh islands north of "Smith's Island."

Navigation is still shown into the Cape Fear River through "New Inlet." The channel passed south of "Federal Point" below the "Light House" and above "Carolina Shoal" and the "Breakers" on a southwest course. The channel continued past "Zeek's I.," although the lightboat is no longer shown. "Horse Shoe" Shoal, near the middle of the Cape Fear River channel, the "Marsh Islands" at the mouth of "Walden Cr.," and "Reeves Pt." are also noted.

A "Caution" to mariners on this map describes the entrances to the Cape Fear River:

> The Channel of both Entrances are constantly changing. No reliable sailing directions therefore can be given. The Range Lights at West entrance, which are marked as occasion requires, lead over best water of outer bar. The postions of the Buoys are also altered to meet the changing conditions of the channels. No vessel drawing over 6 feet water should attempt to enter without a local pilot.

Map Showing Position of Proposed Work from Smith's I[slan]d to Zeeks I[slan]d, United States Army Corps of Engineers, 1870.
The Corps of Engineers drew this simplistic map in 1870 to illustrate the proposed work between Smith's Island and Zeek's Island. A line of construction titled "Remains of Old Works" appears across a few shoals in the respective area between the two islands.

"New Inlet" is labeled south of "Federal Pt." Also indicated on "Federal Pt" are "Fort Fisher," the "Light House," and "Lamb's M."

Map of Wilmington, N.C., James & Brown, 1870.
Wilmington is shown to have considerably increased in size as indicated on the plan map of 1870. Block development is depicted along the Cape Fear River from as far north as "Smiths Creek" to "Greenfield" Street at the southern edge. Development is seen from "Water" Street as far east as "Seventeenth" Street. Little change is noted for the area across the Cape Fear River in Brunswick County. Railroads are illustrated on both sides of the river, including the "Wilmington and Weldon Rail Road" and the "Wilmington Charlotte and Rutherford Rail Road" on the east side. "Point Peter" is shown at the confluence of the "North East" and "North West" Cape Fear River.

Hydrography of New Inlet Cape Fear River North Carolina, United States Coast Survey, 1872.
In 1872 the U.S. Coast Survey mapped New Inlet and the adjacent section of the Cape Fear River. The map produced that year reflects the water depths, shoals, marsh areas, and shipwrecks located near the inlet. "Federal Point" forms the northern boundary of the inlet, and the "Federal Pt. Lt. erected 1866" on the east side and a "Fish House" on the extreme southwestern tip next to the river are shown. The "West Light," "East Light," and "Mound Light" are also indicated. Five shipwrecks are depicted near the entrance to New Inlet. The "*Twilight* (wreck)" is shown near the eastern beach on Federal Point. Located farther offshore are the "Powder Wreck" and "Feather Wreck." The remaining two are each simply indicated as "Wreck." Where New Inlet enters the Cape Fear River, the "*Raleigh* Wreck Buoy" is shown just southwest of the "Fish House." Adjacent to the Smith Island spit of land south of the inlet a "Crib," and possibly jetty, are illustrated. On the eastern shore of the spit near the Inlet an additional "Wreck" is marked. The wreck of the "*Kate* walking beam" in the Cape Fear River is noted south of "Price's Cr. Range Lights" and "Bug Lt." Shown between "Smithville" and Battery Island is the "*North Carolina* wreck."

Gray's New Map of Wilmington North Carolina and Central Part of Wilmington, O. W. Gray, ca. 1873.
Gray's New Map of Wilmington appears to be an improvement on the map done by James and Brown in 1870. Although the maps are nearly identical in the area shown, Gray's map provides more detail. In addition, Gray has done an enlargement of the central section of Wilmington. The "Wilmington & Weldon Rail Road" and the "Carolina Central Rail Road (incorporated 1873)" are marked on this map with both rail lines terminating at the Cape Fear River between "Harnett" and "Red Cross" Streets. Along the eastern side of the "North East river," above where the rail lines terminate, a couple of mills, a "Timber Pen" and the "Empire Sectional Dry Dock" are depicted. On "Point Peter" the "G.F. Alderman & Bro. Point Peter Distillery" is shown. The enlarged plan of

the "Central Part of Wilmington" covers the waterfront from the "Carolina Central R. Road Docks" to the "Wilmington Cotton Mills" at "Wooster St." Located between these two points on the Wilmington downtown waterfront are twelve wharves indicated by name. In addition to the wharves, several mills, companies, and distilleries are indicated.

Diagram Showing Plan of Proposed lines of Work for Closing New Inlet, July 1875, United States Army Corps of Engineers, 1875.

The U.S. Army Corps of Engineers completed a map in July 1875 showing the proposed construction for the closing of New Inlet. Between "Federal Point" and "Zeek's Isd" are four sections of the intended line of works. On the map the first section beginning at Federal Point is marked "500 feet of Cribs Completed." The remaining three sections are "920 ft," "1,550 ft" and "1,715 ft" in length. Profiles of the four sections are also shown on the map. Depth soundings taken in the vicinity of the proposed construction and across the Cape Fear River to "Snow's Marsh" are described as being made by the U.S. Coast Survey in 1872. A channel to the east of "Snow's Marsh" is illustrated, and the map states "Channel cut 100 feet wide and 9 feet deep at low (mean) water." A "Note" provided on the map indicates that "The Bar has 7 ft on it at Low Water; and is about 2½ miles from proposed line of works."

Comparative Chart of Lower Part of Cape Fear River, North Carolina, United States Army Corps of Engineers, 1876.

In 1876 the U.S. Army Corps of Engineers compiled a comparative chart of shorelines in a section of the lower Cape Fear River. Surveys done by the U.S. Coast Survey in 1852, 1858, 1866 and Corps of Engineers surveys in 1872 and 1875 were used in compiling the map. The area illustrated includes the southern tip of "Federal Point" to the northern half of Smith Island. "Lamb Ft.," "Fort Buck" (Battery Buchanan), and the "Lt. Ho. erected 1866" are represented on Federal Point. Across New Inlet a line of "Cribs" and "Apron" connects "Federal Point" to "Zeek's Island" and then to "Smith Is Point." The "*Raleigh* wreck" is shown directly west of the line of obstructions. Of interest is a section of the northern spit on Smith Island marked "Storm Sept 1857 makes a breach 850+ yds wide now closed 1875." Between "Snows Marsh" and "Horse Shoe Shoal" a navigation channel is illustrated "12 feet deep Cut 100 feet wide April 1876." Marked slightly above "Smithville" is the "*Kate* wrk" (wreck). The mouth of "Cape Creek" on Smith Island and "Muddy Slue" in the marsh area to the north are noted. "Battery Isd" and "Striking Isd" are also portrayed.

Obstruction Channel Cape Fear River, N.C., United States Army Corps of Engineers, 1876.

In 1876 the U.S. Army Corps of Engineers mapped the Civil War obstructions that remained after the war in the Lower Cape Fear River. On this map the southern confluence of the "Cape Fear River" and the "Brunswick River" are illustrated, along with "Eagle's Island" and "Clark's Island." On the eastern shore of the Cape Fear River, across from the mouth of the Brunswick River, two areas are shown as the "Ruins of Confederate Battery," while another is marked "Confederate Battery." The two areas marked ruins correspond with Fort Campbell and Fort Meares shown on Confederate Gen. Braxton Bragg's map in 1865. Located in front of one of the "Ruins" (Fort Campbell) is a "Line of Obstructions Sunk By Confederates Removed by U.S. Engineer Dept in 1875." A second "Line of Obstructions Sunk by Confed's Now Bare at Low Water" is marked just below the mouth of the Brunswick River. A jetty is shown between the "Line of Obstructions" and the river mouth. The "Hospital" and structures indicated as "Halifax" and "Waddell" are depicted north of the "Ruins" of Fort Campbell. Just upstream from "Clark's Island" the map indicates where a "Steamboat Sunk," probably the *North Heath* as shown on Gen. Bragg's map. The "*Ella* Wrk" (wreck) is noted on the shoals southeast of Bald Head. The "Seaward Channel" is shown to pass through the shoals south of Bald Head.

Town Creek, N.C., United States Army Corps of Engineers, 1880.

An 1880 map by the U.S. Army Corps of Engineers illustrates Town Creek from "Saw Pit Ld'g" to where Town Creek flows into the Cape Fear River. Numerous named landings, "rice canals," and "flood gates" are indicated along Town Creek. "Rice" and "Cotton" agriculture is shown on both sides of the creek. A "Sunken Flatboat" is also noted above "Indigo Cr." Shown just below the mouth of Town Creek is "Campbell's or Big Is'd." An angled "Jetty" connects the western shoreline of the river below Town Creek with the island. Another "Jetty," located slightly south of the first jetty, extends halfway to "Campbell's Is'd." Water depths shown at the mouth of Town Creek range from 2 to 14 feet.

Map of North Carolina, W.C. Kerr and William Cain, 1882.

The scale used by Kerr and Cain's state map of 1882 allows the Lower Cape Fear River vicinity to be shown with only limited detail. "Smith's Is." is indicated and the "Cape Fear" marked. On the south side of the Elizabeth River, "Ft. Caswell" is pictured. The towns of "Smithville" and "Brunswick" are shown upstream on the western side of the river. The tributaries of "Walden C.," "Lilliput C.," and "Old Town C." enter the river from the west. "Wilmington" is pictured opposite the unlabeled Eagle's Island. Located on Federal Point are "Fort Fisher" and "Sugar Loaf."

Annual Progress Map Cape Fear River (below Wilmington), United States Army Corps of Engineers, 1884-85.

The Corps of Engineers submitted this map showing sections of the Cape Fear River below Wilmington with their report for 1885. Three shoal areas where proposed dredging would occur are illustrated. At "Lilliput Shoal," located "About 11 miles below Wilmington," the existing channel, "finished to 74 feet width and 16.0 feet depth," connected portions of the river with a natural depth of 16 feet. Intended dredging located at just above "Orton Point Light" at the mouths of "Orton Creek" and "Lilliput Creek" showed the "Proposed channel 11,100 feet total length and 270 feet total width."

The Corps also intended new dredging at the "Logs and Big Island Shoal" located "About 7 miles below Wilmington." Connecting two portions of the river already at 16 feet in depth, the existing channel northeast of "Big Island" (Campbell Island) had been finished to a width of 74 feet and a depth of 16.0 feet. The proposed channel would be 8,500 feet in total length and 270 feet wide. "Old Jetties" are also shown extending from either shore above "Big Island."

The remaining shoal illustrated on the map is the "Brunswick River Shoal," located "About 3 miles below Wilmington." Shown southeast of "Clark's Island" near the eastern shore of the Cape Fear River, the existing channel had been "finished to [a] 16.0 feet depth and [a] 74 feet width/111 feet width." Again connecting two portions of the river at natural river depths of 16 feet, the improvements would make the "Proposed channel 5,000 feet [in] total length and 270 feet [in] width." An "Old Jetty" and "Wharf" are shown southwest of the channel.

Cape Fear River Entrances, United States Army Corps of Engineers, 1885.

This simple four-section chart by the U.S. Army Corps of Engineers accompanied the Annual Report of 1885. The chart is a comparison of the "Baldhead Channel" water depths as taken from a U.S. Coast Survey drawn in 1866 and Army Corps of Engineers' surveys from 1877, 1883, and 1885. Water depths are indicated for the 6, 12, 14, and 18-foot contours. The 1866 survey showed "Baldhead Channel" with a maximum depth of 30 feet. "Reeper Shoal" is indicated with a 3.5 foot water depth, while the "Middle Ground" shows only 4 feet. In the "Western Channel" a maximum depth of 24 feet is indicated. The 1877 survey data has "Baldhead Channel" marked with a maximum 29 foot depth and the "Western Channel" still with only 24 feet. Both the 1883 and 1885 survey information show only the "Baldhead Channel," each with a maximum water depth of 29 feet.

N.E. Cape Fear River N.C., United States Army Corps of Engineers, 1885.

This Army Corps of Engineers' map illustrates a portion of the Northeast Cape Fear River approximately 2 miles above Wilmington. Water depths are shown on the western half of the river with depths ranging from 25 to 35 feet near midstream. Features indicated include a "Ferry Landing" and the "R.R. Bridge" (Hilton Bascule) for the "W.C.& A.R.R. and C.C.R.R."

Annual Progress Map Cape Fear River (Below Wilmington), United States Army Corps of Engineers, 1885-86.

The U.S. Army Corps of Engineers submitted this map showing sections of the Cape Fear River below Wilmington with the Corps of Engineers' Report for 1886. Four shoal areas where proposed dredging would occur are illustrated.

At the "Brunswick River Shoal," located "about 3 miles below Wilmington" near the east shore of the Cape Fear River, the existing channel had been dredged to a width of 111 feet. Connecting two portions of the river at natural river depths of 16 feet, the improvements would make the "Proposed channel 5,000 feet [in] total length, 270 feet [in] width." An "Old Jetty" and "Wharf" are shown southwest of the channel. Two others are shown on the eastern shore of the river.

The Corps also proposed dredging at the "Logs and Big Island Shoal" located "about 7 miles below Wilmington." Connecting two portions of the river already at 16 feet in depth, the existing channel northeast of "Big Island" (Campbell Island) had been "Finished to 148 feet width." The proposed channel would be "8,500 feet [in] total length, 270 feet [in] total width." "Old Jetties" are also shown extending from both shores above "Big Island."

At "Lilliput Shoal," located "about 11 miles below Wilmington," the existing channel, "Finished to 111 feet" and "to 148 feet [in] width" at the turn, connected portions of the river with a natural depth of 16 feet. The map's representation of the intended dredging from the mouths of "Orton Creek" and "Lilliput Creek" upstream shows the proposed channel with a length of 11,000 feet and a width of 270 feet.

The remaining area to be dredged was "Snow's Marsh Channel" located "about 20 miles below Wilmington." The channel to the east of "Snow's Marsh" had been "dredged in 1881-1883 to 13,000 feet [in] total length and 270 feet [in] width." The channel was redredged in 1885-1886 in five sections totaling 6,300 feet in length and either 74 or 110 feet in width.

Cape Fear River North Carolina, United States Coast and Geodetic Survey, 1886.

The U.S. Coast and Geodetic Survey map of 1886 is a corrected and updated version of the map drawn in 1866 illustrating the mouth of the Cape Fear River. The location of "Bald Head" and "Cape Fear" are indicated on "Smith's Island." "Range Lights" are shown at "Bald Head" and "Range Beacons" on the south side of "Cape Creek." "Buzzard or Oyster Bay" is depicted toward the northern side of the island. Southwest of "Bald Head" the "Bald Head Shoal" and "The Fingers" are shown. Reeper Shoal and Marshall Shoal have both been omitted from this version. A "Wreck" is indicated on the map on the northwest side of the "Bald Head Channel." The "Western Bar Channel" is shown between "Oak Island" and the "Middle Ground." The Western Bar Channel passes over the bar on a northeast course in front of the "Range Lights" on Oak Island.

"Ft. Caswell" is marked on the eastern end of the island. Also noted on the map are the "Elizabeth River," "Smithville," "Deep Water Pt.," and "Price's Cr." "Battery I.," and "Striking I." are drawn but unlabeled. "Muddy Slue" is noted among the marsh islands north of "Smith's Island."

Across the former entrance to "New Inlet" a "Dam under construction" revealed that New Inlet was no longer open to navigation. The existing "Dam" extended from "Federal Point" to "Zeek's Is," while the "Dam under construction" is shown from "Zeek's Is" to the Marsh Islands above "Smith's Island." "Horseshoe shoal," near the middle of the Cape Fear River channel; the "Marsh Islands" at the mouth of "Walden Cr."; and "Reeves Pt." are noted.

Progress Map Cape Fear River (Below Wilmington), United States Army Corps of Engineers, 1886-87.

The Corps of Engineers progress map for 1886-1887 is similar to those issued in the previous years but simplified to show only the five channels. The Corps accomplished dredging at "Wilmington Shoal" in 1886-1887. The Corps proposed that the channel be maintained at "2,000 feet long, 185 feet wide, and 16 feet deep." At "Brunswick River Shoal," located "3 miles below Wilmington," the existing channel is shown as 5,000 feet long and nearly 185 feet in width. The improvements would make the proposed channel "5,000 feet long, 270 feet wide and 16 feet deep." At the "Logs and Big Island Shoal," located "7 miles below Wilmington," the existing channel had been finished to 8,500 feet in length and 185 feet in width. The proposed channel would be "8,500 feet long, 270 feet wide and 16 feet deep." At "Lilliput Shoal," located "11 miles below Wilmington," the existing channel is shown as 11,000 feet in length and 111 feet wide at the northern end and 185 feet in width at the southern end. The intended dredging would increase the channel to 11,000 feet in length and 270 feet in width overall. The remaining dredged area was "Snow's Marsh Channel" located "20 miles below Wilmington." The Corps redredged a small section of the channel in 1887. The engineers intended that the proposed channel be maintained at "13,000 feet long, 270 feet wide and 16 feet deep."

Coast of North Carolina From Federal Point to Smith's Isd., United States Coast & Geodetic Survey, 1887.

In 1887 the U.S. Coast and Geodetic Survey mapped the coast from Federal Point to Smith's Island. Numerous depth soundings are recorded on this chart, along with several of the navigation points. The dam, or rocks used to close New Inlet, is shown between "Federal Point," "Zeek's Island," and the northern edge of "Smith Island." The "Government Wharf" is indicated just west of the dam within the "Cape Fear River." "Gold Leaf Inlet" and "Corn Cake Inlet" northeast of "Smith's Island" are also shown.

Cape Fear River From Entrance to Reeves Point North Carolina, United States Coast & Geodetic Survey, 1888.
This 1888 map of the lower Cape Fear River presents an updated image of the river with some interesting features not seen on earlier versions. Located between "Oak Island" and "Smith's Island" at the mouth of the river is "Middle Ground." "Fort Caswell" is pictured on "Oak Island." Passing to the west of the "Middle Ground" is the "Western Bar Channel." The "Bald Head Channel" is shown to the east of "Middle Ground." Text on the map indicates that the "Bald Head," or "New Channel," was "dredged 200 ft. wide and 14½ ft. deep." "Bald Head Shoal" and "The Fingers" are indicated southwest of "Smith's Island." The "Cape Fear Light" is noted at Bald Head, while the "Cape Fear Life Saving Station" is shown at "Cape Fear." Also depicted at "Smith's Island" are "Cape Creek," "Muddy Slue," and "Buzzard Bay." The northeastern spit of "Smith's Island" is bisected by "Corncake Inlet" and "Goldleaf Inlet" slightly farther north. A "Channel" is apparent leading from "Goldleaf Inlet" into "Buzzard Bay."

"New Inlet" is shown south of "Federal Point," although water depths at the inlet are shown to have decreased to less than 10 feet. The "dam" is shown between "Federal Point," "Zeke's I.," and the marshes north of "Smith's Island," with the "Government Wharf" marked just to the west. Carolina Shoals have been exposed and are now marked as "Carolina Shoals Beach" shown joining with the eastern side of Federal Point. "Lambs Mound" is illustrated in this vicinity.

Near the mouth of the Cape Fear River, just north of the "Elizabeth River," "Dutchmans Creek" is now shown flowing directly into the Cape Fear. Smithville is now marked as "Southport." "Battery I" and "Striking I" are labeled. Illustrated above "Price's Creek" and at the mouth of "Walden Creek" is "Snow's Marsh." Located to the east, between Snow's Marsh and "Horseshoe Shoal," is "Snow's Marsh Cut." To the southeast of the shoal, "Horse Shoe Channel" is marked. Shown between "Reeve's Pt" on the west side of the river and "Peter's Pt." directly across on the east side, are "Drum Shoal" and "Midnight Shoal."

Northeast Cape Fear River, N.C., United States Army Corps of Engineers, 1889.
During 1889 Capt. W. H. Bixby of the U.S. Army Corps of Engineers produced a map of the "Northeast Cape Fear River" from "Wilmington" to "Korngay's Bridge." Along the more than 100 miles of river illustrated, towns, crossings, geographical locations, and river mileage are noted. The section of Northeast Cape Fear River north of Wilmington to "Smith's Cr" includes the "Carolina Central R.R." and the Wilmington, Columbia & Augusta Railroad bridge. The Cape Fear & Yadkin Valley Railroad is shown extending to the river north of "Point Peter."

Hilton, James & Brown, 1889.
George W. Grafflin drew this map that shows Wilmington from the northern city limits to Smith's Creek based upon the 1889 survey of James & Brown. A plan view of north Wilmington, including street names, is shown. The "C.C. R.R. Track" (Carolina Central Railroad) and wharfs are also noted. Along the south shore of Smith's Creek, areas are indicated as "Rice Lands." The "R.R. Bridge" is depicted across the "North East Cape Fear River." Northeast of the bridge (Hilton) the "Mansion House" is shown. Just downstream from the bridge a "Ferry" is shown to cross the river directly from the foot of "Hilton St." to Point Peter.

Progress Map for 1891 Cape Fear River below Wilmington, N.C., United States Army Corps of Engineers, 1891.
The 1891 Corps of Engineers progress map shows the dimensions of six channels along the lower Cape Fear River. The "Ocean Bar" is the first and only one of the six illustrated that depicts the channel in relation to adjacent topographical and historical references. The "Ocean Bar" channel, located "29 Miles below Wilmington," is shown as an extension of the existing "Bald Head Channel" between "Oak Island" and "Smith's Island" at the mouth of the Cape Fear River. The "Ocean Bar" channel passes between the "Middle Breaker" (Middle Ground) and the "East Breakers" (Bald Head Shoals and The Fingers). The "navigable channel is indicated as "200+ft. wide, 16+ft. deep." "West Breakers" are also noted on the map, although the Western Cut is not illustrated.

"New Cut opposite Snow's Marsh Channel," located "20 miles below Wilmington," shows the existing channel to be maintained at "9,600 ft. long, 270 ft. wide and 16 ft. deep." Dredging on the channel located at the "Old Brunswick Cove Shoal 13 miles below Wilmington" was completed during fiscal year 1890-1891. The dredging produced a channel "1,000 ft. long, 270 ft. wide and 16 ft. deep." The Corps utilized a natural river depth of 16 feet to complete the short channel at Old Brunswick Cove. At "Lilliput Shoal," located "11 miles below Wilmington," the much longer channel of "11,000 ft. long" is shown. This channel would also be maintained at "270 ft. wide and 16 ft. deep." A new channel was begun during 1890-1891 at "Alligator Creek Shoal 1 mile below Wilmington." Only a small section of the proposed channel, "9,800 ft. long, 270 ft. wide and 20 ft. deep," was completed during the reported fiscal year. Initial dredging also began in 1890-1891 at the "Wilmington Shoal." When completed the channel in front of the city would be maintained at "3,200 ft. long, 270 ft wide and 20 ft. deep."

District of U.S. River & Harbor Improvements, United States Army Corps of Engineers, 1891.
The River & Harbor Improvements map of 1891 illustrates the central Atlantic coast. Little information is shown for the Cape Fear River vicinity other than "Wilmington" and "Southport." A table provided on the map entitled "Improvement of Certain Rivers &

Harbors of N. Carolina, S. Carolina & Virginia" presents the most useful information on navigational improvements and commerce. Included is the statement that the Cape Fear River above Wilmington had been under improvement since 1881 and the lower portion since 1870. Improvement on the Northeast Cape Fear is shown as only having begun in 1891.

Map of Wilmington, N.C. showing the Vicinity of Wilmington, Wrightsville Beach, Southport, Carolina Beach, Anonymous, 1892.
The lower Cape Fear River vicinity, and in particular the Wilmington area, is represented on this 1892 map. A plan view of the city shows streets, rail lines, and a few structures. Rail lines that traverse the city include the "W & W R.R." (Wilmington and Weldon Railroad) and the "C.C R.R. and W.C. & A. R.R." (Carolina Central Railroad and the Wilmington, Columbia and Augusta Railroad). Cars on the "C.F.& Y.V. R.R." (Cape Fear and Yadkin Valley Railroad) are shown to be transported from "Point Peter" across the river to their facility at the foot of "Mulberry St." A "shipyard" at the foot of "Nun St.," the "Ferry" over the Cape Fear from "Market St." to "Eagles Island," and the "Clyde Line" at the foot of "Chesnut St." are all indicated. "Kidders Mill" is also shown as being located near the foot of "Wright St." The "Quarantine Hospital" is depicted northeast of "Clarks Is," just south of "Dram Tree Pt."

North East (Cape Fear) River, N.C., United States Army Corps of Engineers, 1893.
Robert C. Merritt mapped during a survey for the Corps of Engineers in 1891 a portion of the Northeast Cape Fear River from the Old County Ferry to a point one mile north of the Hilton Railroad bridge above Wilmington. The site of the "Old County Ferry" crossing is shown 700 feet downstream from the "Hilton R. R. Bridge." Docking piers for the ferry are shown on both sides of the river. Directly below the ferry on the eastern side of the river is "Parsley's Mill Wharf." Above the bridge on the western shore of the Cape Fear River the location of "Evan's Saw Mill" along with a "Lumber Pen" is indicated. Farther upstream, on the western side of the river, are the "Wharf of Powers, Gibbs, and Co's Fertilizer Works" and the "Wharf of C. W. Pike & Co.'s Saw Mill."

Improvement of the Cape Fear River, N.C., Below Wilmington, Showing Cuts Dredged Through 10 Shoals to Obtain a Depth of 18 Feet at Mean Low Water, United States Army Corps of Engineers, 1895.
This 1895 Army Corps of Engineers map is useful for showing the location of three channels in the vicinity of Wilmington. The map covers a section of the Cape Fear River from just below the mouth of the Brunswick River to the Hilton Railroad Bridge above Wilmington. Water depths are given for the illustrated area. The "Brunswick Channel" is shown as a straight channel approximately 7,200 feet in length below the mouth of the Brunswick River. The "Alligator Creek Channel" begins across from "Dram Tree Pt." and ends opposite "Wilmington." Two sections form this channel with a total length of 9,800 feet. The remaining channel is the "Wilmington Channel" that begins off

the tip of "Point Peter" at the confluence of the Cape Fear and Northeast Rivers. The "Wilmington Channel" is comprised of two sections located within the Northeast Cape Fear River totaling 3,200 feet in length.

Improvement of the Cape Fear River, N.C., Showing Channel Through Alligator Creek Shoal, United States Army Corps of Engineers, 1895.
This map showing Alligator Creek Channel is a detailed examination of the larger Improvements map showing the section of Cape Fear River below Wilmington. Water depths are indicated for the complete channel. The only map notation other than water depths and buoys is the "Wreck Sch. *Enchantress*" (wrecked schooner) shown west of the channel.

Post Route Map of the States of North Carolina and South Carolina, von Haake, 1896.
The postmaster general of the United States ordered this 1896 map published. Since the purpose of the map is to show the postal routes of the state, little detail of the Lower Cape Fear River is noted. However, the "W.S.R.R." (Wilmington Seacoast Railroad) is illustrated between "Wilmington" and "Wrightsville."

Sanborn Fire Insurance maps, 1884, 1889, 1893, 1898, 1904, 1910 and 1915.
The Sanborn Fire Insurance Company compiled these maps of Wilmington approximately every five years from 1884 to 1915. These city maps provide accurate and detailed information on a block-by-block basis. Much of the Wilmington waterfront is depicted, often with specific information such as the owner's name, type of industry, and the number and placement of buildings on each commercial lot. Wharves, piers, docks, and railway facilities bordering the Cape Fear River are commonly noted.

Map of Wilmington Harbor North Carolina showing proposed Anchorage Basin, United States Army Corps of Engineers, 1900.
The Corps of Engineers mapped the Anchorage Basin at Wilmington Harbor to accompany their annual report of 1900. The improvements to the Anchorage Basin located at the southern "City Limits" of "Wilmington" on the Alligator Creek Channel would include dredging to a depth of 28 feet. Water depths averaged approximately 13 feet in the area. The map also indicates the proposed 20-foot-deep approaches into the harbor along the Alligator Creek Channel. The Wilmington Channel is also shown in the northern part of the city above Point Peter. The northern edge of this map is defined where the "A.C.L. & S.A.L. Railroad" (Atlantic Coast Line and Seaboard Air Line) crosses the Northeast Cape Fear River.

Cape Fear River from Reeves Point To Wilmington North Carolina, United States Coast and Geodetic Survey, 1901.

The U.S. Coast Survey map of 1901 shows the Cape Fear River from Wilmington to "Reeves Pt." Shorelines on both side of the Cape Fear River are illustrated with timber, marshes, and diked areas. Above "Reeves Pt.," on the western shore of the river, are located the "Ruins of Old Brunswick." Marked between the ruins and "Orton Pt." is the "Old Brunswick Cove Channel." "Orton Creek" and "Liliput Creek" flow into the Cape Fear River above "Orton Pt." An area labeled as "Ballast Rock" is noted southwest of "Keg I." Located just below "Old Town Creek," the tributary "Sand Hill Cr" is indicated. "Campbell I" is shown between the mouths of these creeks. "Mallory Cr" is labeled north of Old Town Creek. "Eagle's Island" is depicted between the "North West Branch" of the Cape Fear and the "Brunswick River." "Clark's I" is shown off the southeastern
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shore of Eagle's Island. "Pt. Peter" is also labeled.

South of "Wilmington," on the eastern shore, "Greenfield Cr" is represented. "Dram Tree Pt" is also indicated on the map. At an unnamed point south of Dram Tree Point the "Hospital" is represented. Two other tributaries on the eastern side of the Cape Fear River are "Barnard's Creek" and "Todd's Creek," located directly east of Campbell Island. The "New Hanover Transit R.R." connects "Carolina Beach" with the shore of the Cape Fear River slightly north of "Doctor's Pt." "Sugar Loaf" hill is shown on the eastern shore across from the ruins of Old Brunswick.

Cape Fear River from Entrance to Reeves Point North Carolina, United States Coast and Geodetic Survey, 1901.

This 1901 map of the lower Cape Fear River presents an updated image of the river from the Cape Fear River entrance to Reeves Point. Located between "Oak Island" and "Smith Island" at the mouth of the river is the "Middle Ground." "Fort Caswell" is pictured on Oak Island. Passing to the west of the Middle Ground is the "Western Bar Channel." The "Bald Head Channel" is shown to the east of Middle Ground. "Bald Head Shoal" is indicated southwest of "Bald Head." The "Cape Fear Light" is noted at Bald Head, while the "Cape Fear Life Saving Station" is shown at "Cape Fear" on the southeastern side of Smith Island. Also depicted at Smith Island are "Cape Creek," "Light House Creek," "Muddy Slue," and "Buzzard Bay." The northeastern spit of Smith Island is disected by "Corncake Inlet" and, slightly farther to the north, "Goldleaf Inlet." A "Channel" leads from Goldleaf Inlet into Buzzard Bay. "Frying Pan Shoals" are noted south of Cape Fear.

"New Inlet" is still shown south of "Carolina Shoal Beach" and "Federal Point," although the "Dam" long ago closed the inlet. "Lambs Mound" is illustrated in the vicinity where "Carolina Shoal Beach" joins Federal Point. The Dam is shown between Federal Point, "Zeke's I.," and the marshes north of Smith Island. Near the mouth of the Cape Fear River just north of the "Elizabeth River," "Dutchmans Creek" is indicated as flowing directly into the Cape Fear. "Southport," "Battery I," and "Striking I" have been labeled.

Northeast of Battery Island the "National Quarantine" is indicated. Illustrated above "Price Creek" and at the mouth of "Walden Creek" is "Snow's Marsh." Located to the east of Snows Marsh is "Horse Shoe Shoal." Shown between "Reeves Pt." on the west side of the river and "Peters Pt." directly across on the east side, are "Drum Shoal" and "Midnight Shoal."

Untitled, United States Army Corps of Engineers, 1906.
The "Harbor Lines Approved by Sect'y of War, Dec 26, 1895" are indicated on this 1906 map of the Wilmington waterfront between "Orange St" and above "Brunswick St." Shown between "Chestnut St" and "Redcross St," a "Modification of Harbor Lines recommended on Jan 8, 1906" places them farther from shore then the previous harbor lines. The "Champion Compress Wharves," "WW & WCRA RR Wharf," (Wilmington and Weldon & the Wilmington, Columbia, Raleigh and Augusta Railroad), "CC RR Wharf," (Carolina Central Railroad), "Wilmington Compress Wharf," and "Chadbourn's Mill Wharves" are noted on the map. The "Cape Fear & Yadkin Valley RR Depot" is indicated on "Point Peter," and "Willard's Wharf" is shown on the west side of the Cape Fear River.

Cape Fear River at and below Wilmington, N.C. Plat of Proposed Engineer Yard, United States Army Corps of Engineers, 1909.
This map of the proposed Wilmington Engineer Yard drawn by the Corps of Engineers in 1909 shows the site on the west side of the river between "Grainger Land" and "Robinson Land." In addition to the yard, a "Powder House" and the "Sut Factory" are marked north of the proposed site. On the east side of the Cape Fear River, across from the yard, is a marine railway at the foot of "Church Str."

Cape Fear River, N.C. At and below Wilmington, N.C. Proposed Yard for Engineer Plant, United States Army Corps of Engineers, 1909.
The proposed site of the U.S. Army Corps of Engineers yard on the west shore of the Cape Fear River across from Wilmington is illustrated on this 1909 map. Several details are indicated along the riverfront just north of "Alligator Creek" near the site of the property "Purchased by Government." The shoreline is mainly shown to be in "Brush & Swamp," "Woods & Swamp," and "dyked" areas. Shoreline features shown along the northern section include "Capt. Williams Wharf," "House," "Lumber Shed," and "Old Chimney." In addition an "Old Mill Site" and two "Old houses" are illustrated. Eight "Old Wrecks" are shown offshore from the "Old Mill Site." Seven of the wrecks are depicted with rounded ends, while one rectangular vessel may be a barge. All of the wrecks occur outside of the "Harbor Line" in the "Tide Land."

Cape Fear River, North Carolina From the Ocean to Wilmington, 8 Sheets, United States Army Corps of Engineers, 1910.
The Cape Fear River at Wilmington is shown on sheet one of this set of maps drawn by the Corps of Engineers in 1910. The channel and water depths are shown for the river from the railroad bridge north of the city to the "Anchorage Basin" at the southern city limits. Sheet eight of this set illustrates the mouth of the Cape Fear River. The "New Channel Range" is marked west of "Bald Head Pt."

Map of Wilmington North Carolina, P. P. Pilcher, 1911.
Pilcher's map of Wilmington drawn in 1911 illustrates the street layout for the city with the location of several named structures. The Atlantic Coast Line Rail Road is indicated on the map encircling most of Wilmington. Several steamer routes are depicted on the map. The "Clyde Line" wharf is noted at the foot of "Mulberry St.," and the docks for the "Sprunt Line Cotton Steamers" are shown between "Red Cross St." and "Walnut St." The "Wilmington & Fayetteville" steamer is shown to load on the Wilmington waterfront between "Chestnut St." and "Princess St." The "Wilmington & Southport" steamer docks near the "Customs House" at the foot of "Market St."

Cape Fear River, N.C. in the immediate vicinity of the U.S. Quarantine Station, United States Army Corps of Engineers, 1912.
The Cape Fear River in the vicinity of the "Quarantine Station" east of "Southport" is depicted on this 1912 map. The Quarantine Station is situated near mid-channel, slightly north of "Battery Isd" and "Striking Isd." An inset illustration shows a plan view of the station, including a "Wharf" and "Landing." Water depths shown on the west side of the quarantine wharf average approximately 24 feet.

Cape Fear River, N.C. at and below Wilmington showing Conditions of Improvement at End of Fiscal Year 1914, United States Army Corps of Engineers, 1914.
This useful map compiled by the Corps of Engineers in 1914 illustrates the Lower Cape Fear River vicinity from "Wilmington" to "Cape Fear." From the Bar to the city ten channels are shown: "Ocean Bar Channel, Snows Marsh Ch, Reaves Pt Ch, Midnight Channel, Old Brunswick Cove Channel, Lilliput Channel, Keg I Ch, Logs & Big I Ch, Brunswick R Ch, and Alligator Cr Channel." The Ocean Bar Channel entered the mouth of the Cape Fear River from the southwest and turned east toward "Baldhead Light." From Baldhead ships entering the river turned northwest toward "Southport," then back to the northeast past the "Quarantine Sta" to "Price Cr" where naturally deep river depths eliminated the need for dredged channels in this area. At Price Creek began the Snows Marsh Channel that passed west of "Zekes" Island and the "Swash Defense Dam," then passed by Reaves Point Channel and Midnight Channel, all near midriver. Old Brunswick Cove Channel followed the western shore to opposite Orton Point,

where the Lilliput Channel began. Keg Island Channel passed to the west of Keg Island and east of Campbell Island. The remaining three channels: Logs & Big Island, Brunswick River, and Alligator Creek continued along midriver to Wilmington.

Text shown on the map briefly summarizes the work done by the Corps during 1913-1914:

> The total results obtained on the project to the end of the fiscal year 1913 may be summarized as follows: There was a channel 26 feet deep at M.L.W. from the Ocean to Reaves Pt.; from Reaves Pt to Wilmington there was a channel 26 feet deep at M.L.W. and from 150 to 300 feet wide. The Ocean Bar channel was from 150 to 400 feet wide and from 26 to 28 feet deep.
>
> The results obtained up to the end of the fiscal year 1913-14 may be summarized as follows: There is a channel 26 to 28 feet deep from the Ocean to Wilmington. The Ocean Bar channel is from 250 to 400 feet wide. The balance of the channel is from 150 to 300 feet wide. The project is 65% completed. The tide rises 4½ ft. at the bar; 3½ ft. at Keg Island and 2½ ft. at Wilmington. Wilmington is 30 miles from the bar.

Town Creek, N.C. (Brunswick County), United States Army Corps of Engineers, 1916.

In 1916 the Corps of Engineers mapped 20 miles of Town Creek west from its mouth at the Cape Fear River. Numerous landings and some bridges are shown on Town Creek. On the south side of the creek, where it enters the Cape Fear River, an "Old Jetty" connects the shore with "Big Island." The "Route taken by Boats entering Town Creek" from the channel either pass over, or through, the jetty. An additional "Old Jetty" is marked on the western shore upstream from the mouth of the creek. The jetty extends to the channel at midriver.

Entrances to Mouth of Town Creek, N.C. Brunswick County, United States Army Corps of Engineers, 1916.

In November 1916 the Corps of Engineers produced a map that details the entrance to Town Creek. The "Old Jetty" that connected the western shore with "Big Island" is shown. A "Cut dredged in 1900" extends from the mouth of Town Creek to the Old Jetty. A "Proposed Cut" is illustrated that would lead straight out of Town Creek, then turn upstream north of Big Island. This "Route to Channel in Cape Fear River" would connect with the first reach of the "Logs & Big Island Shoal" channel. This new route would pass into the channel directly over the other "Old Jetty" north of the mouth of Town Creek.

Cape Fear River, N.C. below Wilmington Ocean Bar, United States Army Corps of Engineers, 1917.

The Corps of Engineers illustrated the Ocean Bar located at the mouth of the Cape Fear River in 1917. The Ocean Bar Channel is depicted seaward of Oak Island (shown with a "Tower") and Smith's Island. West of "Baldhead Lighthouse" the location of a "Wrecked Fishing Smack" is marked. Water depths are noted over the bar and channel area.

Wilmington, North Carolina, J. L. Becton, 1918.

J. L. Becton compiled this 1918 plan view of Wilmington for the Wilmington Chamber of Commerce. A number of structures are identified within the city and along the waterfront on this map. The extensive network of rail lines that terminate at the Cape Fear River west of Point Peter are also shown. Maritime associated facilities illustrated on the eastern waterfront include: the "Wilmington to Southport Boat Line" at the foot of "Princess Street," the "Clyde Steamship Co. New York-Wilmington and Georgetown" a half block north of the foot of "Queen Street," and the "Cushman-McKown Co Shipyard" on the riverfront between "Queen Street" and "Wooster Street." "Ship Building Sites," the "Wilmington Marine Railway & Shipyard," and the "Hamme Marine Railway" are indicated across from Wilmington on the western side of the Cape Fear River. The "Anchorage Basin" is depicted with a notation of a "26 Ft Channel - 300 Ft Wide 30 miles to Sea."

Sailing Lines Ocean Bar, United States Army Corps of Engineers, 1921.

In 1921 the U.S. Army Corps of Engineers mapped the sailing lines into the Cape Fear River through the Main Channel and the Western Bar Channel. As many as ten different sailing lines are shown for the Main Channel and three for the Western Bar Channel. Directly south of "Baldhead Point" the wrecks of the "*Levy Davis*" and "*Ella*" are shown.

Port Facilities at Wilmington, North Carolina, United States Army Corps of Engineers, 1922.

The Corps's 1922 plan view of the port facilities at Wilmington shows an extensive amount of detail for the waterfront district. The area covered by this map is from "Smiths Creek" to "Greenfield Mill Cr." Just north of "Greenfield Mill Cr" the "City Wharf" and the "Bates Lumber Co" wharf are shown. Farther north riverfront facilities include the "Clyde Line S.S. Co" at the foot of "Queen St" and the "North Carolina Line" wharves between "Ann St" and "Nun St." The berth for the "Stmr. Wilmington" is shown near the foot of "Orange St." Several other wharves, terminals, and warehouses are shown along the Wilmington waterfront. At the foot of "Market St" the ferry route is illustrated crossing the river to the opposite shore. Terminals and warehouses, many associated with the rail lines, are detailed in the northern section of the city. On the western shore of the Cape Fear, below the confluence, more facilities of the "North

Carolina Line" are shown along with the "Stone Marine" railway and the "Hamme Marine" railway.

Cape Fear River Below Wilmington, N.C. and from Wilmington to Navassa, United States Army Corps of Engineers, Sheet No. 1, 1927.
The "Wilmington Shoal Channel" and waterfront are shown on this 1927 Corps of Engineers map. The "Proposed Turning Basin," "U.S. Harbor Line," and river depths are indicated. Structures, rail facilities, and marine railways are shown in detail but are not identified. The "Ferry" route is identified from the foot of "Market St" directly across to the western shore of the Cape Fear River. The highway bridges across both branches of the Cape Fear and the Hilton railway bridge over the Northeast Cape Fear are shown.

Cape Fear River Below Wilmington, N.C. and from Wilmington to Navassa, United States Army Corps of Engineers, Sheet No. 2, 1927.
On this map completed by the Corps of Engineers in 1927 the Cape Fear River channel and anchorage basin are depicted. The "Anchorage Basin" at the southern city limits above "Greenfield Mill Creek" is "2,000 Ft Long, 900 Ft wide at Upper End 1100 wide at Lower End, [with] Approaches 1,500 Ft long." Two channels are depicted—the "Alligator Creek Channel" and the "Upper Brunswick River Channel." "Dram Tree Pt" is indicated on the east side of the river across from "Redmond Creek."

Cape Fear River From Reeves Point to Wilmington, United States Coast and Geodetic Survey, 1929.
In 1929 the U.S. Coast and Geodetic Survey mapped in detail the Cape Fear River from Reeves Point to Wilmington. "Smith's Creek" enters the Cape Fear River above Wilmington. "Eagle's Island," across from "Wilmington," is shown as largely uninhabited with some agricultural areas on the eastern and northwestern riverfronts. "Clarks I" appears as a small land mass apparently connected to the southern tip of Eagle's Island. The larger island is dissected by "Alligator Creek" and "Redmond Creek." A wreck is shown east of the 1929 channel at "Dram Tree Pt" below the city. Northwest of "Campbell I." both "Mallory Creek" and "Old Town Creek" enter the Cape Fear River from the west. Flowing into the river from the eastern shore, northeast of Campbell Island and "Keg I.," are "Barnard's Creek" and "Todd's Creek." A "landing" is noted above "Doctor Pt" on the eastern shore of the river. A pier extends northwestward from Doctor Point. Directly across from Doctor Point, "Liliput Creek" and "Orton Creek" are illustrated entering the river just north of "Orton Pt." South of the "Ruins of Old Brunswick" some piers or wharves are shown protruding into the Cape Fear halfway to the "Upper Midnight Channel Range, June, 1929." A wreck is indicated near the shoreline at the town ruins. "Sturgeon Cr" enters the river above "Reeves' Pt."

Smiths Creek in the Vicinity of Wilmington, N.C., United States Army Corps of Engineers, 1931.
The U.S. Army Corps of Engineers mapped Smiths Creek located above Wilmington in 1931. Northern "Wilmington" and the "North East Branch" of the "Cape Fear River" are shown from above the confluence to just north of "Smiths Creek." The "Proposed Cut" leading from the main river channel, along with depths, are indicated on the map. A "Timber Pen" is shown on the eastern shore of the river, south of the mouth of Smiths Creek. Extensive soundings at the mouth of Smiths Creek are indicated on an inset on the map. The proposed cut angles north-northeast from the main channel, then turns northeast to enter the creek. Areas marked "Wreckage" and "Sunken Scow" are shown east of the proposed cut at the mouth of Smiths Creek and above the timber pen.

Smiths Creek, Wilmington, N.C., United States Army Corps of Engineers, 1937.
The Corps of Engineers again surveyed and mapped the Cape Fear River at the mouth of "Smiths Creek" in 1937. The resulting map depicts the "Proposed Cut" east of the main channel that leads into the creek. The cut does not appear to connect with the main channel, (15 feet in depth in 1936,) located on the west side of the "Northeast Cape Fear River." The proposed dredged cut is shown to parallel the shoreline then turn nearly ninety degrees to the east to enter Smiths Creek. A "Wreck" is illustrated at the bend in the cut near the mouth of the creek. Another "sunk barge" or "Scow" is depicted near the main river channel west of the proposed access cut. South of Smiths Creek the "Atlantic Refining Co" and the "Dump Ground" are shown. Depicted offshore of the Atlantic Refining Company are two wrecks—one a "Barge" and the other a "Boat." A large "Timber Pen" is illustrated in the river offshore from the dump ground and factory.

Cape Fear River, N.C. At and Below Wilmington, Wilmington Harbor.
United States Army Corps of Engineers, 1937.
Wilmington Harbor from the confluence of the Northeast and Cape Fear Rivers to the "U.S. Engineer Yard" is shown on this 1937 map by the U.S. Army Corps of Engineers. The "U.S. Harbor Line" and river channel depths are indicated along a moderately detailed "Wilmington" waterfront. Several structures, including factories, wharves, and rail terminals, are illustrated, but few are named. An "Old Railway" and two areas marked "Old Wharf" are indicated along the river at the foot of "Church St" and "Castle St." Directly across the river the "Hamme Marine Railway" and the "R. R. Stone Marine Railway" are illustrated in some detail. Six wrecks are shown between the "U.S. Engineer Yard" and the "Hamme Marine Railway." Four of the wrecks appear to be barges based on their rectangular shape. The remaining two have rounded ends. Five additional rounded-end vessels and one barge are shown adjacent to the "Stone Marine Railway Co" property, but they are not described as wrecks. The "Ferry Slip" is depicted at the foot of "Market St." and directly across the river on the opposite shore. On the western side of the Northeast Cape Fear River above "Pt. Peter" three other likely wrecks are marked. One is a rounded-end ship, and the other two are barges.

Cape Fear River, N.C. At and Below Wilmington, Wilmington Harbor (Anchorage Basin). United States Army Corps of Engineers, 1937.
The U.S. Army Corps of Engineers prepared a map of the Anchorage Basin near south Wilmington in 1937. The limits of the "Anchorage Basin" and the "U.S. Harbor Line" are indicated on the map. The "Bates Lumber Co.," the "Cape Fear Terminal Co. Inc.," and other facilities are shown along the eastern waterfront in a detailed plan view. At least ten "wrecks" are illustrated just south of the Cape Fear Terminal Company pier near the foot of "Meares St." Half of the wrecks appear to be barges, while the others may be sailing or steam vessels. Slightly farther from shore, 400 feet south of this group of wrecks, a second area is marked "wrecks" but does not show the individual vessels.

Cape Fear River Below Wilmington, N.C. In Front of Southport, United States Army Corps of Engineers, 1937.
The Cape Fear River from just above Southport to Oak Island is illustrated on this 1937 U.S. Army Corps of Engineers map. The "Swash Channel" is marked between "Southport" and "Battery Island" with the "Intracoastal Waterway" shown southwest of the town. Along the waterfront at Southport several piers are shown that extend into the river. North of Battery Island the "Quarantine Station" is clearly indicated east of the channel.

Cape Fear River Below Wilmington, N.C. Southport to Fort Caswell, United States Army Corps of Engineers, 1939.
The Cape Fear River in the vicinity of Southport is illustrated on this 1939 U.S. Army Corps of Engineers map. The "Swash Channel" and a portion of the "Lower Snows Marsh Channel" are depicted. The "Decommissioned Quarantine Station" is shown in detail east of the Swash Channel. A "Wreck," pointing upstream, is located between the channel and "Battery Island." An additional "wreck," probably a barge, is indicated along the western river shoreline just south of the intracoastal waterway at "Southport." Several piers and wharves are visible along the waterfront at Southport. A "dock," "wooden Bulkhead," and "concrete seawall" are depicted at "Fort Caswell" on Oak Island.

Cape Fear River, N.C. Location of Wreck of Barge "*Belfast*," United States Army Corps of Engineers, 1939.
The Corps of Engineers surveyed and mapped in 1939 the wreck of the barge *Belfast* (lost in 1929). The wreck is illustrated approximately 800 feet northwest of "Battery Island" and 600 feet southeast of the "Swash Channel." An inset to the map shows that the "Original Position" of the wreck oriented on an east-west axis, was in approximately 22 feet of water. The *Belfast*, based upon map measurements, was 190 feet in length and 40 feet in width. An area is marked around the wreck showing the limits of

scattered wreckage. Several wharfs and piers are pictured along the waterfront at "Southport."

North Carolina — New River Inlet to Cape Fear, United States Coast & Geodetic Survey, 1944.
The Lower Cape Fear River is shown from "Wilmington" to eastern Smith Island on this 1944 Coast & Geodetic Survey map. Little change is noted for the main channel of the river. Below "Orton Point" two side channels extend from the main channel to the eastern shore. The Cape Fear River is fed by the tributaries "Price Cr," "Walden Cr," "Orton Cr," "Liliput Cr," "Sand Hill Cr," "Old Town Cr," and "Mallory Cr" from the west and "Barnard Cr" and "Mott Cr" on the east. "Orton Pt," "Reaves Pt," and the present "Sunny Pt" are labeled between Orton Creek and Walden Creek. On the east side of the river below Wilmington, from north to south, "Dram Tree Pt," "Doctor Pt," and "Peters Pt" have been indicated. The "Dam," "The Basin," and "Corncake Inlet" are marked between "Federal Point" and "Smith I."

North Carolina — Approaches to Cape Fear River, United States Coast & Geodetic Survey, 1944.
In 1944 the Coast & Geodetic Survey mapped the Lower Cape Fear River from "Sunny Pt" to the bar. The main channel is illustrated from the bar to opposite Sunny Point, except for the stretch of river between "Southport" and "Ft. Caswell" on Oak Island and a small section opposite "Bald Head." Sufficient natural water depths occuring in these two sections are shown. Southeast of Southport depths range from 37 to 46 feet and west of Bald Head from 33 to 35 feet. The "Dam" is shown between "Federal Pt," "Zeke I", and the marsh islands north of "Smith I."

"Corncake Inlet" is present on the map, but New Inlet is now shown as completely closed over. The "Western Bar Chan[.]" appears navigable northwest of the "Middle Ground." "Cape Fear Slue" and "Four Mile Slue" are marked southeast of the "Cape Fear." During late 1943 and early 1944, "the controlling depth at mean low water to Wilmington was 29½ feet." Two partially submerged shipwrecks are indicated south of "Striking I," while three others are present near the shoreline of Smith Island at Bald Head.

Cape Fear River, North Carolina at and below Wilmington, Wilmington Harbor, United States Army Corps of Engineers, 1947.
In 1947 the U.S. Army Corps of Engineers mapped in detail Wilmington Harbor. This map shows the Cape Fear River from just above "Smith Creek" to the "Brunswick River." The "Anchorage Basin" and two "Turning Basin[s]" are defined opposite Wilmington. Recommended widening of the channel below the Anchorage Basin is marked opposite "Redmond Creek." Several of the piers, wharves, and warehouses

located along the Wilmington waterfront are identified and listed. The Hilton Railroad Bridge and the highway bridge are illustrated crossing the Northeast Cape Fear River.

Cape Fear River, N.C. at and Below Wilmington, Wilmington Harbor Turning Basin and Approaches, United States Army Corps of Engineers, 1948.
An examination of the 1948 U.S. Army Corps of Engineers map of the Wilmington turning basin reveals some interesting features along the western shore of the "Northeast (Cape Fear) River." Opposite Wilmington, slightly above "Pt. Peter," the presence of a "sunken boat" is noted. "Dock Ruins," "Wharf Ruins," and three abandoned or wrecked barges are shown south of the "Bate Lumber Co." The "Wilmington Terminal and Warehouse Co." is detailed on the eastern side of the Northeast River.

Cape Fear River, N.C. at and Below Wilmington, Wilmington Harbor (Anchorage Basin), United States Army Corps of Engineers, 1948.
The Corps mapped the Anchorage Basin at Wilmington in 1948. Along both sides of the Cape Fear River the "U.S. Pierhead and Bulkhead Line" is indicated, along with water depths for the entire anchorage. On the west side of the river, north of "Alligator Cr," the "Corps of Engineers Yard" and the "International Paper Co Wharf" are shown. Directly across the Cape Fear from the Corps of Engineers Yard is the "Clyde S.S. Co" facilities. Other shoreline properties on the Wilmington side of the river are depicted. A "Sunken Barge Area" is marked on the east side of the Cape Fear River opposite "Alligator Cr." A note states that the "Survey of [the] area [was] taken 11 Nov. 1948 after removal of [a] sunken barge."

Cape Fear River, N.C. at and Below Wilmington, Harbor Lines, Wilmington, N.C., United States Army Corps of Engineers, 1948.
This map depicts the 1948 Wilmington Harbor Lines compiled by the Corps of Engineers from surveys dating back to 1896. A portion of the Cape Fear River from "Castle St." to "Turlington Street" is indicated. The "U.S. Pierhead and Bulkhead Line" is shown on both sides of the river. "Ruins" are depicted adjacent to the "Bate Lumber Co," "Republic Oil Co.," and "American Molasses Co." properties. The "City Wharf leased to Taylor Colquitt Creosoting Co." is located across from "Alligator Cr."

Cape Fear River, N.C. at and below Wilmington, Wilmington Harbor, United States Army Corps of Engineers, 1949.
Wilmington Harbor, as drawn by the Corps of Engineers in 1948, shows the Cape Fear River from above "Point Peter" to "Castle St." The "U.S. Pierhead and Bulkhead Line" is indicated on both sides of the river. On the west bank of the Cape Fear River, opposite Wilmington, the "R.F. Hamme Marine Railway" and the "R.R. Stone Marine Railway" are shown in detail. The railways and what may be abandoned vessels are

depicted at the water's edge. At the adjacent property on the north side of the "U.S. Engineer Yard" five barges, possibly abandoned, are indicated. The property is directly across the river from the foot of "Church St." Above "Pt. Peter" two additional barge-like features are indicated along with an area of pilings.

Wilmington Harbor, N.C., Lower Swash Channel, United States Army Corps of Engineers, 1949.

The Lower Swash Channel located between "Southport" and "Battery Island" is illustrated on this 1949 Corps of Engineers map. River depths are noted for the entire channel. Extensive shoaling can be seen on the northern and southern ends of "Battery Island." North of Battery Island the "Quarantine Station" is drawn and includes the location of a "Water Tank." The Southport waterfront is detailed with several piers and wharves that extend beyond the shoreline shoals. At least one marine railway is indicated.

Wilmington Harbor, N.C., Turning Basin and Approaches, United States Army Corps of Engineers, 1959.

In 1959 the Corps of Engineers mapped the turning basin in the "Northeast [Cape Fear] River" above "Pt. Peter." River depths within the basin are shown. The railway facilities on the eastern shore are depicted in detail with several structures identified by name. On the western shore of the Northeast River above Point Peter, two marine railways and a "junk yard" are shown.

Cape Fear River, Cape Fear to Wilmington, United States Coast and Geodetic Survey, 1959.

The 1959 map of the Cape Fear River by the U.S. Coast and Geodetic Survey is similar to the current USCGS map. Shoaling is less extensive on the 1959 map than on later editions. "Keg Island" and the southern tip of "Campbell Island" exhibit fewer shoal areas than today. The "New Battery I channel range," "New Southport channel range," and the "New Baldhead-Caswell channel range" are present on this map. Three wrecks are shown on the west side of "Battery Island," while three other partially submerged vessels are indicated east of the island. The 1959 map also shows three wrecks on the western edge of the "Frying Pan Shoals." "Corncake Inlet" is marked.

Site of Brunswick Town. Brunswick County, North Carolina. Archaeological Base Map correlated with C.J. Sauthier's map of April 1769 and the Reconstruction Lot Plan of Maurice Moore, 1726 with a list of the Property owners and Fort Anderson 1862-65, North Carolina Division of Archives and History, 1960.

A composite map of the site of Brunswick Town drawn by the North Carolina Division of Archives and History in 1960 combines the works of Sauthier's map of 1769, Maurice Moore's lot plan of 1726, and the plan of Fort Anderson, 1862-1865. The western shore of the Cape Fear River at Brunswick is depicted with piers, wharf ballast piles, wharves, pilings, and a catwalk. Some of the pilings are associated with the "Steamer Wilmington, 1890-1922." Two possible wrecks, indicated by the word "Boat," are also shown on the river shoreline. The plan of Brunswick, keyed to property owners, and old Fort Anderson are also illustrated.

Cape Fear River, N.C., Above Wilmington, Wilmington to Fayetteville, United States Army Corps of Engineers, 1961.
In 1957, then revised in 1961, the Corps of Engineers produced a map of the Upper Cape Fear River from Wilmington to Fayetteville. River mileage is shown over the 115-mile distance, as well as numerous towns, landings, creeks, crossings, and locks. On this scale map very little detail is included from the Wilmington waterfront to Point Peter.

Cape Fear Penisula & Estuary North Carolina, Anonymous, 1964.
This map drawn in 1964 of the Cape Fear vicinity illustrates the mouth of the Cape Fear River from "Federal Point" to the cape. Several creeks traverse and divide the salt marshes and islands of "Smith Island" and "Middle Island." An area referred to as "The Lumps" is shown off of "Cape Fear" in the region of the "Frying Pan Shoals." Several wrecks are noted near "Bald Head Island," including the "*Ella*," "*Phanton II*," "*Antonica*," "*Kate II*," and a vessel between the channel and "Fort Holmes." The main channel entrance to the Cape Fear River, east of the "Middle Ground," and the "Western Bar Channel" are indicated on the map. On Smith Island the locations of the 1796 and 1817 Bald Head lighthouses and the 1905 Cape Fear lighthouse are noted in addition to the "abandoned Coast Guard Station." Between "Federal Point" and Smith Island the past locations of "New Inlet," "Corncake Inlet" and "Bald Head Inlet" are marked. The "Current New Inlet" is noted at "Carolina Shoal Beach." "The Rocks" (breakwater) connect Federal Point with "Zekes Island" and "Shellbank Island," which is part of Smith Island.

Carolina Beach, N.C., United States Geological Service, 1970.
The Carolina Beach vicinity showing the Cape Fear River from "Campbell Island" to "Reaves Pt" is covered on this current topographical map. The western shore of the river opposite Campbell Island and "Keg Island" is marked as "levee" or "Tidal Flat." "Liliput Creek" and "Orton Creek" continue to flow into the river above "Orton Pt." "Orton Plantation" is indicated at Orton Point, while "Brunswick Town" and "Anderson Landing" are noted farther south. Two of the "Military Ocean Terminal Sunny Point" wharves are depicted north of "Reaves Pt." The eastern shore of the Cape Fear River across from the MOTSU facilities is included in the military buffer zone. Across from Federal Point "Snows Cut" is shown north of the town of Carolina Beach. "Lords Creek" enters the river north of "Doctor Pt." "Mott Cr" is illustrated east of "Campbell Island."

Castle Hayne, N.C., United States Geological Service, 1970.
The current Castle Hayne topographic map illustrates the "Northeast Cape Fear River" above "Wilmington." The "Seaboard Coast Line" railway bridge (Hilton Bridge) crosses the river just south of the mouth of "Smith Creek." The U.S. Highway 421 bridge is also shown north of Wilmington.

Cape Fear, N.C., United States Geological Service, 1970.
The current Cape Fear topographical map shows the southern half of "Smith Island." Along the western shoreline of the island, "Bald Head" and the "Bald Head Lighthouse" are noted. Tidal flats and several creeks dissect the interior of the island. The "Frying Pan Shoals" are illustrated southeast of "Cape Fear." Along the eastern shore of Smith Island is "East Beach."

Kure Beach, N.C., United States Geological Service, 1979.
On this photo-revised map of the Kure Beach vicinity, the lower Cape Fear River is depicted from "Reaves Pt" to "Smith Island." The southernmost of the three wharves belonging to the Military Ocean Terminal Sunny Point is shown on the western side of the river between Reaves Point and "Sunny Pt." "Snows Marsh" and "Snows Pt" are shown at the mouth of "Walden Creek" below MOTSU. "Deep Water Pt" and the present-day western terminus of the "Ferry Landing" at "Price Cr" are also indicated on the western shore. The eastern shoreline of the river has "Peters Pt" and the eastern terminus of the "Ferry Landing" indicated on "Federal Point." "The Rocks" are depicted connecting Federal Point, "Zekes Island," and the northern marsh islands of "Smith Island." "The Basin" is shown between Federal Point and Zekes Island.

Wilmington, N.C., United States Geological Service, 1979.
This photo-revised topographical map shows the current vicinity of the Cape Fear River from above Point Peter to Campbell Island. A grid plan of "Wilmington" is shown at the confluence of the Cape Fear and Northeast Cape Fear Rivers. The Cape Fear Memorial Bridge connects Wilmington with "Eagle Island." The USS *North Carolina* Battleship Memorial is illustrated opposite Wilmington at Eagle Island. Shown on the eastern shore of the river, across from the southern end of Eagle Island, are the "State Port Authority" facilities. "Mallory Creek" and "Town Creek" are depicted flowing into the Cape Fear River from the western shore. "Barnards Creek" enters the river from the eastern shore below Wilmington.

Index Map For Dredging, Wilmington Harbor, N.C., United States Army Corps of Engineers, 1983
In 1983 the Corps of Engineers produced a map of the lower Cape Fear River that documents the dredged channel. Each of the channels are shown and labeled, and

their dimensions are given. At Wilmington the map indicates the presence of the 800-foot-wide "Turning Basin" and the 1,150-foot-wide "Anchorage Basin." A "Connecting Channel" (marked near the mouth of "Lilliput Cr" and "Orton Cr") leads to the "A.I.W.W" (American Intracoastal Water Way) at "Snows Cut" between the Cape Fear River and the Atlantic Ocean. Above "Southport" the ruins of the "Quarantine Sta" are shown. Buoys and mile markers are also noted along the river.

Southport, N.C., United States Geological Service, 1990.
"Southport," "Battery Island," and the "Oak Island" vicinity are illustrated on this latest topographical map of the Lower Cape Fear River. Battery Island appears mainly as tidal marsh with only a small section of sand beach along the western shoreline. The eastern and southern shores of Oak Island are depicted as sand with only marsh areas along the northern section. "Fort Caswell" is illustrated.

United States — East Coast, North Carolina, Cape Fear River — Cape Fear to Wilmington, National Oceanic and Atmospheric Administration, 1992.
The current National Oceanic and Atmospheric Administration (NOAA) map shows the present navigation channel from the mouth of the Cape Fear River to the mouth of the Northeast Cape Fear River above Wilmington. Existing ranges are indicated by name and location. At the mouth of the Northeast River the "Turning Basin" is shown between the U.S. 421 bridge and "Point Peter." Below the confluence of the rivers, two partially submerged wrecks are noted on the shoreline of "Eagle Island" opposite downtown "Wilmington." A third wreck is shown in the pond on Eagles Island opposite Alligator and Redmond Creeks. The anchorage basin is illustrated near the mouth of "Greenfield Cr."

At the mouth of the "Brunswick River" a partially submerged wreck is indicated. Another wreck is shown opposite "Mallory Creek." Near the mouth of "Town Creek" a submerged jetty and pilings are indicated that connect with "Campbell Island." Above Campbell Island and "Keg Island" the tributaries of "Barnards Creek" and "Mott Creek" enter the Cape Fear River from the east. "Liliput Creek" and "Orton Creek" are shown on the western side of the river above "Orton Point." "Doctor Point" is situated directly across the river from "Liliput Creek."

"Snows Cut" dissects "Pleasure Island" north of "Carolina Beach." Two connecting channels—one leading to the northwest, the other to the southwest—join "Snows Cut" with the main navigation channel in the river. South of "Anderson Landing" and the "Ruins of Old Brunswick" a shipwreck is marked on either side of the "Upper Midnight Channel Range." "Peters Point" is depicted on the east side of the Cape Fear River, while "Reaves Pt" and "Sunny Point" are shown on the west side of the river. Two extension channels connect the main channel with the deep water wharves at the Military Ocean Terminal at Reaves and Sunny Points. Beyond the mouth of "Walden Creek" can be found "Snows Marsh" and "Horseshoe Shoal." To the east of the

Horseshoe Shoal, "The Rocks," or breakwater, joins "Federal Point," "Zekes Island," and the northern marsh of "Smith Island." The "Ferry" connects Federal Point with the western side of the river at "Price Creek."

The main navigation channel passes between "Southport" and "Battery Island." Four shipwrecks are indicated on the south and west sides of Battery Island. One partially submerged vessel is indicated on the Southport waterfront. At the Bald Head Channel Range the current NOAA map shows one wreck west of the range and another to the east of "Bald Head Shoal." Four shipwrecks are indicated in the vicinity of "Cape Fear Slue" at the "Frying Pan Shoals."

Conclusions

Historical and Cartographic Research Conclusions

Historical and cartographic research played an important role during the Cape Fear-Northeast Cape Fear Rivers Comprehensive Survey in determining how and where the priority areas were chosen and providing clues to the identification of sites found within those areas. The areas evaluated by historical and cartographic research tried to follow the notion of a "comprehensive" survey and were not limited to selection from any defined portion of the river. A considerable part of the research effort was expended on the development of a historical and environmental context against which site significance and research potential could be judged. Archival information was organized so that factors that might bear on the predictability of cultural resource locations could be easily recognized.

A closely related goal was the development of a list of historic place-names for various cultural and natural landmarks along the river. Such a listing has long been an important need because many place-names have disappeared from common usage and, through the years, mapmakers have often been inconsistent in their use and placement of place-names. Additionally, written historical accounts often referenced place-names no longer found on modern maps. The primary tool for compiling place-name information was historical map projection—that is, the transfer of historic features from a number of old maps onto modern maps and, where appropriate, a search for those features in the field. That work was an important part of the overall documentation effort. Historic maps allowed the researchers to identify cultural and natural features that might be directly influential in maritime trade and exploration or that might affect the disposition of a shipwreck. Thus, the researchers searched for the locations of landings, plantations, careening grounds, shoals, fortifications, ferry crossings, boat works, shipwrecks, and virtually anything else that might conceivably have had some relationship to the river and river traffic.

Documentation of the historic features along the river began with the acquisition and inspection of 139 maps of the Cape Fear River from various federal, state, and private collections. Those maps ranged in date from 1585 to 1992; some covered only a portion of the river, while others documented the lower Cape Fear in its entirety. Upon examination of each map, the key historical features were first entered in a database file, and then presented in text as cartographic descriptions. When a change occurred in the spelling or location of a place name, the change was noted. In many cases the earliest known usage of the historical feature was also indicated. Through the process of chronicling historic features across a large collection of cartographic sources, the researchers were able to document the first occurrence, subsequent changes, and length of usage for many of the historic and natural features along the Cape Fear. This approach allowed the researchers to later evaluate all of the accumulated cartographic information in conjunction with historical information in determining the placement of survey, or priority areas, with unrestricted areal coverage, and especially in testing ideas about the distribution of shipwreck locations.

In addition to the historical documentation used in the selection of survey areas, the UAU also defined the areas with the highest potential for yielding cultural resources based upon environmental review guidelines it had established in 1982. According to the guidelines, a high potential area exists when "a known archaeological site or charted historic wreck is present or when historic research indicates that a project lies in an area with active maritime history, documented vessel losses, or known hazards to navigation." Using the accumulated historical information on the Cape Fear project area and the defined criteria for high potential areas from the environmental review guidelines, the researchers selected eleven priority areas with the potential to contain submerged archaeological sites. A twelfth priority area was limited to a shoreline survey of the land exposed during low tide. The selection of the priority areas generally followed the distribution of shipwreck losses or abandonment at three primary localities—the Wilmington waterfront, New Inlet, and the mouth of the Cape Fear River. The selection of those areas supported the common-sense premise that archaeological remains (i.e. shipwrecks) are most likely to occur in highly used areas such as harbors, or hazardous areas such as inlets. From that distribution four of the priority areas were placed at or near Wilmington, four areas at or near Southport, two areas near New Inlet, one area at Brunswick Town, and one area at Campbell Island. The success of pre-survey research and selection of priority areas was borne out by the field investigations, which succeeded in locating and identifying shipwrecks and other significant cultural remains in nine of the twelve priority areas.

An examination of both historical and cartographic information revealed some general distribution patterns of cultural resources along the Cape Fear. It is not surprising that the greatest number of maritime-related sites were found in areas with the most and longest historic activity or closely associated with habitable topography of the lower Cape Fear—high points of land adjacent to deep water, near the mouth or confluence of creeks or rivers, and on land suitable for cultivation. The following historical summary of development along the lower Cape Fear provides an indication of the river's extensive use.

Following a lengthy occupation along the shores of the Cape Fear River by native inhabitants, European exploration of the region began in the 1520s. From the early exploration and attempt at settlement by the Spaniard Lucas Vásquez de Ayllón comes the earliest known account of a ship lost on the river in 1526. Following 1526 the Cape Fear River remained unvisited for nearly a century and a half until the English arrived in 1662. That year a small group of people from the Massachusetts Bay Colony, under the command of William Hilton, briefly established the Charles Town settlement and named the prominent cape at the mouth of the river the Cape Fear—a name later applied to the river. Although the attempt by those colonists to inhabit the region failed, their efforts encouraged others to consider, and eventually explore and develop, the Cape Fear. In 1725 Brunswick Town, on the western shore of the Cape Fear River approximately 13 miles above the mouth, became the first permanent settlement. Within a few years other colonists began a small community at the confluence of the Cape Fear and Northeast Cape Fear Rivers that is today the prosperous major shipping center known as Wilmington.

As development spread along the shores of the Cape Fear River, local inhabitants were either granted or purchased property, on which many established plantations. Before the existence of passable roads, navigable streams were the only way the owners could travel or transport their plantation goods, especially naval stores, lumber, and rice, to market. Shipping and trade constituted the very lifeblood of the Cape Fear economy, and the majority of the commerce on the river passed through either Wilmington or Brunswick Town. Vessels that sailed to and from those two communities formed a trade network with other coastal ports, the West Indies, and points as far away as Europe. As the number of farmers and merchants increased in and around the communities, so did the quantity of shipping and trade along the river. Thirty-five plantation sites dating from the eighteenth to early twentieth centuries have been recorded in the vicinity of the study area. Very few of the structures originally located on those plantation sites still exist, and only the well-maintained Orton plantation house is still standing. Recently the house foundation of another historic plantation—Sedgeley Abbey—has been located near Snow's Cut, and as development advances to the areas south of Wilmington, Eagles Island, and rural Brunswick County, additional plantation sites are likely to be found.

While a number of the plantations occurred adjacent to the river priority areas, the survey recorded no underwater or archaeological site directly associated with any of the plantations. This is likely to have resulted from the fact that the survey concentrated on the deeper portions of the river. Only Priority Area 12 included a survey of the shorelines of the Northeast Cape Fear River between Smith Creek and the USS *North Carolina* Battleship Memorial during low tides. The low-water survey within Priority Area 12 culminated in the location of several wreck sites, which complimented the large number of wrecks found during the 1985 river survey. None of the wrecks, however, were associated with plantations.

As trade and shipping on the lower Cape Fear River increased in importance, so did the area's vulnerability to attack. Nearly two dozen fortifications, or batteries, were built from the colonial period through the Civil War. Most of the fortifications were small earthen works that have been obliterated by modern development, although remnants of the larger forts still exist. Forts Johnston, Caswell, and Anderson, located on the west side of the Cape Fear River, protected the navigational channel up to Wilmington. Sufficient water depths within the river adjacent to those forts allowed surveyors to establish priority survey areas and conduct a remote-sensing investigation for cultural material. Fort Fisher, the largest remaining fortification, was oriented seaward for the protection of New Inlet, however. Historical accounts exist for a number of Civil War shipwrecks in the ocean off Fort Fisher and New Inlet, although the shallow depth of water on the river side of the fort has made investigation of that section of river opposite the main channel difficult. The historical records also indicate that additional shipwrecks, including those intentionally sunk as obstructions by the Confederates, were lost within close proximity of the other fortifications. None are known to have been sunk as a result of direct military engagements with the forts, however.

Along with the expansion of trade came the need for improvements in land and water transportation. The necessity of improving the river's navigability was expressed as early as the mid-eighteenth century. A lack both of sufficient funding and an organized effort by the local inhabitants, however, yielded little gain in river improvements until 1819, when the local Board of Internal Improvement hired Hamilton Fulton, an English civil engineer, to direct improvements on the Cape Fear. From that humble beginning by the state, the river has undergone nearly continuous maintenance by the U.S. Army Corps of Engineers and its predecessors.

Although there exists little information about the location and depth of the eighteenth-century Cape Fear River channels, historic maps as early as 1733 indicate that the deeper water, as much as 18 feet, ran near the western shore on the lower portion of the river—similar to the channel location maintained today. One area, however—Orton Cove, located immediately north of the ruins of Brunswick Town—underwent a significant realignment of the channel. In that area, as well as offshore of the colonial settlement, extensive dredging may have disturbed or destroyed any remnants of historic ship losses. On the upper portion of the river, from just below the mouth of Old Town Creek up to the confluence of the Cape Fear and Northeast Cape Fear, the natural channel tended to flow near the central part of the river like the one used today. Vessel losses that occurred outside the maintained channel may still be preserved. Silt deposited within the river near the mouth of Old Town Creek formed a shoal called the "Flats," where the average depth of water was only 10 feet. Vessels drawing more than that depth were compelled to lighter at the Flats at a considerable expense of time and money. With the subsequent maintenance of a channel through the shoals, larger vessels were able to proceed on to Wilmington, which in turn led to the town's expansion and growth.

Nature also played an important role in shaping the Cape Fear River. In 1761 a severe storm opened a breach between the river and the ocean that eventually became known as New Inlet. Until the Corps of Engineers closed New inlet in the 1870s, the river could be entered through either of two passages. At first only small vessels could navigate the narrow inlet, but it expanded rapidly and with time rivaled the main channel entrance at the river's mouth. The mouth of the Cape Fear River has continually proven to be the most difficult section of the river in which to maintain a navigable channel—especially during the period that New Inlet was open. At that time water entering New Inlet deposited sand and reduced the scouring effect of the main channel and in turn sand accumulated at the mouth of the river decreasing the depth of water over the bar. The earliest historic accounts reveal that the main channel entrance at the river's mouth entered on the east side, adjacent to Bald Head Island. During the mid to late 1800s the main channel flowed near the west side of the entrance, adjacent to Oak Island. Near the turn of the century it once again shifted to the opposite side of the river, near Bald Head Island. As a result of the dynamic nature of sand deposits, the majority of the ships known to have been lost on the Cape Fear River came to grief in the vicinity of the river's mouth. It is this same unpredictability and change that has buried and likely preserved many of those vessels.

Shipbuilding along the lower Cape Fear River dates back as far as the early exploration period. The earliest ship construction along the river is thought to have been accomplished by Spaniard Lucas Váquez de Ayllón, the first European to venture up the Cape Fear River. The building of a ship in 1526 to replace one he lost crossing the bar may well be the basis of the local tradition that "a Spanish shipyard" was once located on the west bank of the Cape Fear River, approximately 2½ miles upstream from what is now the town of Southport. No other shipbuilding is known to have taken place on the Cape Fear until after the settlement of Brunswick Town in 1725. Other small sites for the construction or repair of sailing craft followed at Wilmington, Southport (Smithville) and Bald Head Island from the mid-eighteenth to the mid-nineteenth century. Wilmington's two prominent Civil War shipbuilding projects included the construction of the Confederate ironclads *Raleigh* at the Cassidey & Sons shipyard and the *North Carolina* at Beery's shipyard. While the vessels themselves brought little fame to the local area, their construction did establish Wilmington as one of the leading shipbuilding centers in the state. From the end of the Civil War until the turn of the century, the city experienced a boom in the ship construction industry. Several local shipyards produced vessels of wood and iron.

Because of Wilmington's established reputation as a shipbuilding center, the U.S. Shipping Board in 1917 selected the city as the site for a facility to build vessels for use in World War I. While the Carolina Shipbuilding Company was building fabricated steel ships, the Liberty Shipbuilding Company began building concrete vessels. It was also during that period that the last large sailing vessels, two wooden four-masted schooners, were built in Wilmington. When war returned in the early 1940s, the city was again selected as a shipbuilding site. The U.S. Maritime Commission chose Wilmington as a site for the construction of cargo vessels. The Newport News Shipbuilding Company was responsible for building ships at Wilmington under a subsidiary known as the North Carolina Shipbuilding Company. That firm produced 126 Liberty ships and 117 Victory Ships at the Wilmington shipyard during the war. From the end of the war until the present, shipbuilding at Wilmington steadily declined. Today only small pleasure craft are constructed along the lower Cape Fear River.

Foremost among the cultural resources that are of concern to this project are shipwrecks, inasmuch as they are the resources most likely to be affected by channel dredging. The identification and distribution of shipwrecks has been examined both for historical accounts of vessel losses and known sites. Information on the historical vessel losses is presented here, while data concerning known wreck sites is discussed as part of the archaeological conclusions.

Historical documentation indicates that 291 ships have been lost along the lower Cape Fear River and Northeast Cape Fear River (Appendix 1A). Currently there are 92 known wreck sites, although many do not correspond with the historical accounts. This comparison would suggest that a number of vessels either lost or abandoned along the river are not accounted for in the historical record, and as such the record may represent an underestimate of the actual number of vessels wrecked within the project area. Those vessel losses included in the historical record are distributed as follows: 171 have been lost on the Cape Fear River, 68 at the main entrance to the river, 45 at New Inlet, and 7 on the lower portion of the Northeast Cape Fear River near Wilmington.

A wide variety of both sailing and steamships are included in the historical accounts of vessel losses **(Figures 36, 37)**. Of the 291 vessels documented in the historical record the greatest number of losses are steamers and schooners. From the overall popularity and quantity of those vessel types, it is not surprising that their numbers exceed other types. The following table represents the variation in vessel types known to have been lost in or near the project area:

Table 1-2
Types of Historic Vessels Lost in the Cape Fear Vicinity

SAIL		**STEAM/OIL/GAS**		**OTHER/UNKNOWN**	
Vessel Type	**Number Lost**	**Vessel Type**	**Number Lost**	**Vessel Type**	**Number Lost**
Schooner	60	Steamer	66	Unknown	11
Brig	19	Ironclad	2	Rowboat/launch	4
Bark	17	Gunboat	5	Flatboat	4
Sloop	9	Torpedo Boat	1	Barge	6
Ship	7	Tugboats (gas)	14	Scows	4
Lighter	11	Tugboat (steam)	1	Tenders	2
Pilot boat	12	Freighter (oil)	2	Dredge	1
Flagship	1	Ferryboat (steam)	1	Yacht	1
Sharpie	6	Pile Driver	1	Boat	1
Privateer	1	Lightship	1		
Smack	1	Screw (oil)	1		
Batteau	1	Screw (gas)	7	**TOTAL: 291**	
Flyboat	1	Launch (gas)	1		
Skiff	1	Boat (gas)	3		
Sail	1	Yacht (gas)	1		
		motorboat	1		
		cabinboat	1		

The earliest recorded ship loss in the Cape Fear vicinity occurred near the mouth of the river in 1526. The most recent dates to 1965. The distribution of vessel losses clusters at three localities—Wilmington waterfront, New Inlet, and the mouth of the Cape Fear

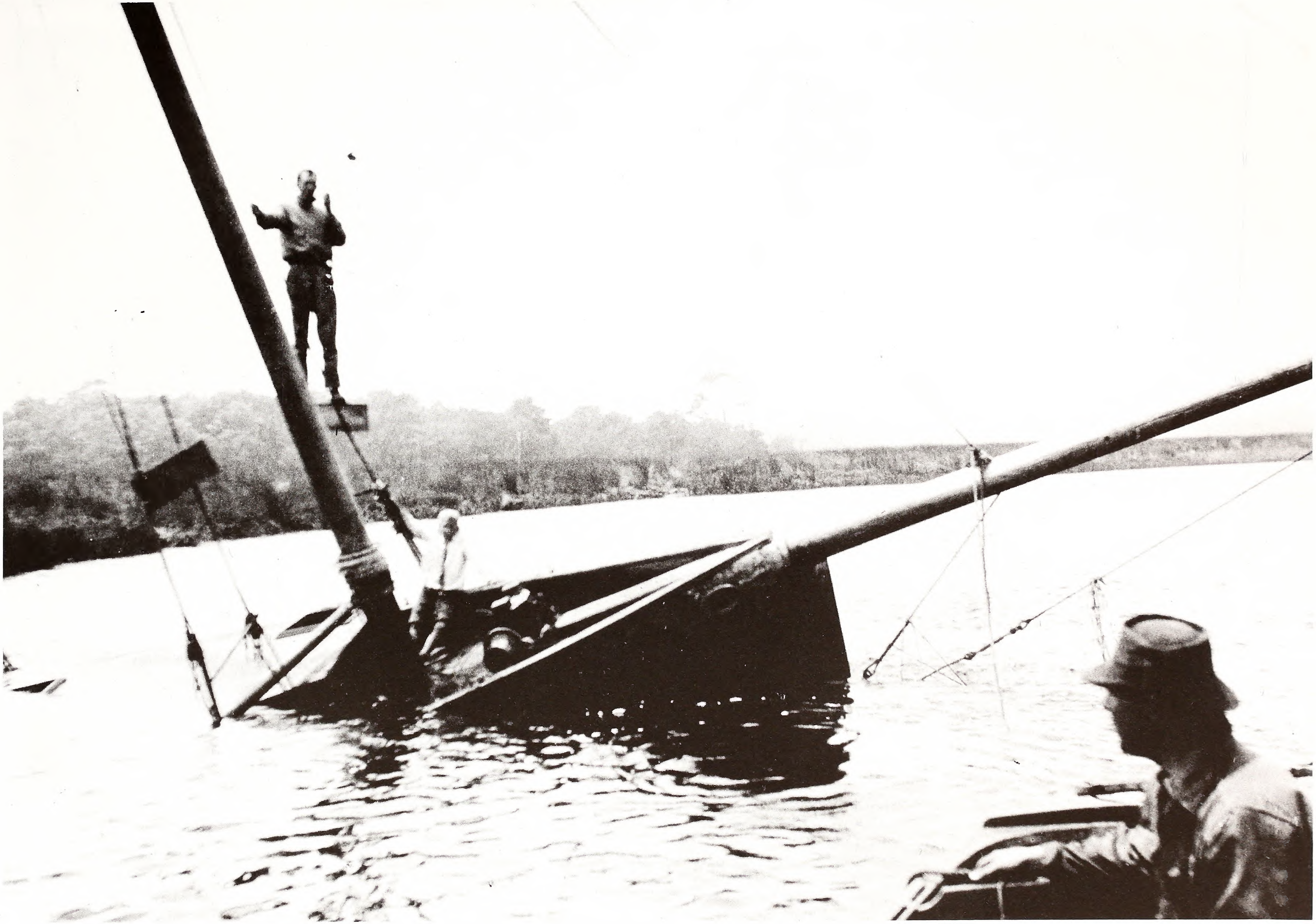

Figure 36. Photograph showing shipwreck of unknown schooner on river, 1913.

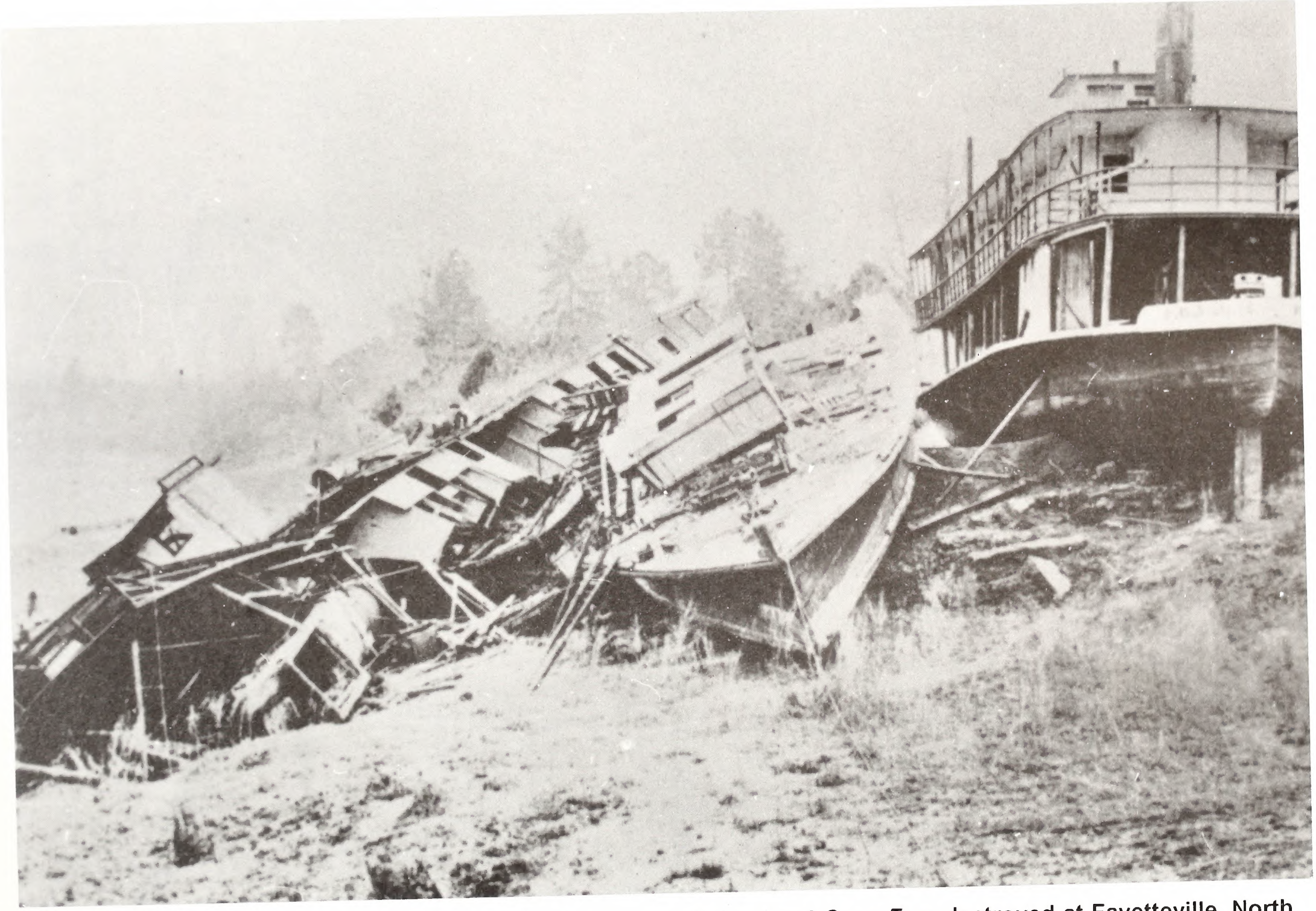

Figure 37. Photograph showing shipwrecked steamers *A. P. Hurt* and *Cape Fear* destroyed at Fayetteville, North Carolina, on January 14, 1895.

River. Ship losses at the latter two localities can be attributed primarily to the high number of vessels that concentrate at those narrow ocean entrances into the river. Additionally, inlets and sandbars present hazards to navigation with the accumulation of constantly shifting shoals. The vicinity of Wilmington, situated at the confluence of two major waterways, is an area in which the longest continuous period of concentrated maritime activity along the lower Cape Fear River occurred. Also contributing to the high number of losses associated with the development of the Wilmington area are ships that have been destroyed at or near their wharfs from collisions, fire, or other accidents. The uninhabited Eagles Island shoreline, across from Wilmington, also served as an area for the abandonment of old or obsolete vessels. The following table lists the various causes of shipwrecks in or near the project area:

Table 1-3
Causes of Shipwrecks in the Cape Fear Vicinity

Cause	Number	Cause	Number
Burnt	52	Struck piling	1
Sunk	46	Destroyed by British	4
Exploded	5	Destroyed by USN	16
Collision	11	Destroyed by CSA	1
Capsized	6	Abandoned by CSA	1
Foundered	2	Scuttled by CSA	3
Grounded	3	Went to pieces	3
Ashore	56	Overloaded	1
Stranded	6	Swamped	1
Aground	11	Abandoned	4
Sunk as obstruction	8	Wrecked	3
Sunk by mine	2	Cast away	2
Hit obstruction	5	Lost	7
Hit wreck	1	Unknown	29
Hit rock jetty	1		
		TOTAL: 291	

The study and use of the Cape Fear and Northeast Cape Fear River historical and cartographic resources in a comprehensive manner provided a valuable evaluation tool both prior to and during fieldwork. By using a historical and environmental context against which site significance and research potential could be judged, the researchers were able to select survey areas with the highest probability for containing cultural resources. Conversely, the selection of those priority areas significantly reduced the overall amount of river to be surveyed. When questions about the possible identity of a cultural resource arose in the field, the historical background often supplied likely candidates in the identification process.

Archaeologists and historians are of the general consensus that settlements from both the prehistoric and historic periods were often concentrated along watercourses.

Numerous small aboriginal sites, as well as a wide variety of historic period settlement, farmstead, and commercial sites, can be found along navigable waterways. While shipwrecks are the category of underwater sites most commonly recognized and sought, other categories are lesser known and often overlooked. Among the other types of underwater sites are submerged aboriginal middens, remains of prehistoric watercraft, abandoned docks and wharves, old boatyard or plantation landings, and submerged river navigational structures. Future research by cultural resource managers should strive to incorporate into their methodology the identification, evaluation, and possible impact projects will have on these lesser known underwater sites. Finally, with the publication of historical documentation such as place-names, cartographic summaries, and maritime-related sites, future researchers will be provided with the foundation for locating and assessing the significance of cultural resources throughout the Cape Fear region for years to come.

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Appendix 1A

Lower Cape Fear River
Historical Accounts of Shipwrecks lost within Study Area

Name of Vessel	Type	Date Lost	Cause	Location
Cape Fear River below Wilmington (CFR)				
1. *Fortuna*	Sloop	1748	Exploded	Brunswick Town
2. *Pelican*	Sloop	1768	Burnt	Near Cape Fear
3. *Alexander*	Ship	1776	Sunk as Obstruction	Cape Fear River
4. Unknown	Schooner	1776	Sunk as Obstruction	Cape Fear River
5. Unknowns	Brigs (2)	1776	Sunk as Obstruction	Cape Fear River
6. Unknowns	Tenders (2)	1776	Burnt by British	Cape Fear River
7. Unknown	Unknown	1777	Destroyed by British	Cape Fear River
8. Unknowns	Unknown	1777	Destroyed by British	Southport Harbor
9. *Liberty*	Schooner	1803	Burnt	Brunswick Town
10. *John*	Brig	1809	Sunk	Cape Fear River
11. *San Antonio*	Spanish Brig	1813	Lost	Near Wilmington
12. *Bryron*	Schooner	1825	Ashore	Buzzard's Bay
13. Unknown	Lighter	1825	Foundered	Cape Fear River
14. *Felicity*	Schooner	1830	Sunk	Smithville
15. Unknowns	Brigs (3)	1830	Sunk	Smithville
16. *John Walker*	Steamer	1831	Exploded	Dram Tree
17. *Samuel Potter*	Brig	1849	Burnt	Smithville
18. Unknown	Pilot boat	1850	Collision	Smithville
19. *Charles Downing*	Steamer	1855	Burnt	Wilmington
20. *Frederick William Cates*	Schooner	1860	Burnt	Five Fathom Hole
21. *Kate* I (*Carolina*)	Steamer	1862	Ran upon obstruction	Above Smithville
22. CSS *North Carolina*	Ironclad	1864	Abandoned by CSA	Battery Island
23. CSS *Arctic*	Gunboat	1865	Sunk as Obstruction	Near Fort Campbell, later raised
24. *Cape Fear*	Steamer	1865	Scuttled by CSA	Near Fort Campbell
25. CSS *Caswell*	Steamer	1865	Scuttled by CSA	Wilmington
26. CSS *Equator*	Steamer	1865	Scuttled by CSA	Wilmington
27. *General Whiting*	Torpedo boat	1865	Sunk	Point Peter, raised
28. *Henrietta*	Steamer	1865	Sunk	Near Dram Tree
29. *Isaac Wells*	Steamer	1865	Destroyed by CSA	Craig's Landing
30. *North Heath*	Steamer	1865	Sunk as Obstruction	Near Fort Campbell
31. *Regulator*	Steamer	1865	Burnt	Wilmington
32. *Thorne*	Steamer	1865	Sunk by mine	Near Fort Anderson, later raised
33. CSS *Yadkin*	Gunboat	1865	Sunk as Obstruction	Near Fort Campbell
34. US Navy launch	Rowboat	1865	Sunk by mine	Near Fort Anderson
35. Unknown	Steamer	1865	Sunk	Foot of Castle St.
36. Unknown	Steamer	1865	Burnt	Smithville
37. *Planet*	Schooner	1870	Hit Obstruction	Near Smithville
38. *Washington*	Steamer	1870	Burnt	Campbell Island
39. *Flash*	Sloop	1871	Unknown	Cape Fear River

40. *Ida C. Potter*	Steamer	1871	Abandoned	Wilmington
41. *Washington*	Steamer	1871	Burnt	Near Fort Caswell
42. Unknown	Smack	1871	Capsized	Off Smithville
43. Unknown	Lighter	1871	Capsized	Off Smithville
44. *Troy*	Schooner	1872	Sunk	Campbell Island
45. *Elina*	Bark	1874	Capsized	Quarantine Station, later raised
46. Unknown	Flatboat	1874	Overloaded	Wilmington
47. *J.S. Underhill*	Steamer	1878	Burnt	Wilmington
48. *North East*	Steamer	1878	Burnt	Wilmington
49. *Henry Westermanr*	Bark	1879	Ashore	Smith Island
50. *Kate Bonsfield*	Bark	1879	Ashore	Smith Island
51. *Rose*	Lighter	1879	Ashore	Battery Island
52. *Sarah*	Lighter	1879	Ashore	Battery Island
53. *Rosa Scarborough*	Pilot Boat	1880	Sunk	Gander Hall, raised
54. *Clio*	Brig	1880	Sunk	Snow's Marsh, possibly raised
55. Unknown	Flatboat	1880	Sunk	Wilmington
56. *J.A. Levensaler*	Pilot Boat	1881	Ashore	Between Fort Caswell and Smithville
57. *Live Oak*	Bark	1881	Ashore	Cape Fear River
58. *Maggie*	Schooner	1881	Sunk	Off Brunswick
59. *Plant*	Schooner	1881	Ashore	Between Fort Caswell and Smithville
60. *Rose*	Schooner	1881	Ashore	Smithville
61. *Siam*	Schooner	1881	Ashore	Between Fort Caswell and Smithville, raised?
62. *Swift*	Pilot Boat	1881	Ashore	Between Fort Caswell and Smithville
63. *Uriah Timmons*	Pilot Boat	1881	Collision	Cape Fear River, raised
64. *Clinton*	Steamer	1882	Burnt	Wilmington
65. Unknown	Sail	1882	Capsized	Smithville
66. *Mary Wheeler*	Schooner	1883	Ashore	Behind Oak Island Lighthouse
67. *Planet*	Lighter	1883	Went to pieces	Cape Fear River
68. *Ray*	Schooner	1883	Ashore	Near Price's Creek Lt.
69. *Rose Cumming*	Schooner	1883	Sunk	Foot of Dock Street
70. *Rover*	Schooner	1883	Ashore	Big Rock
71. *Sulitzelmar*	Bark	1883	Ashore	Big Rock
72. Unknown	Dredge Tender	1883	Sunk	Snow's Marsh
73. Unknown	Pile Driver	1883	Sunk	Battery Island
74. Unknown	Pilot Boat(s)	1883	Ashore	Smithville
75. Unknowns	Schooners (4)	1883	Ashore	Smithville
76. *Uriah Timmons*	Pilot Boat	1883	Sunk	Smithville
77. *Viola*	Lighter	1883	Sunk	Off Orton Plantation, raised
78. Unknown	Flatboat	1884	Swamped	Wilmington
79. *Siam*	Schooner	1884	Burnt	Wilmington
80. *Addie*	Pilot Boat	1885	Collision	Smithville
81. *Argyle*	Schooner	1885	Ashore	Smithville
82. *Emma*	Brig	1885	Ashore	Deep Water Point
83. *Fairfield*	Schooner	1885	Ashore	Smithville
84. *J.A.Levensaeler*	Pilot Boat	1885	Ashore	Smithville
85. *Powder Monkey*	Pilot Boat	1885	Ashore	Smithville

86. *Swiftsure*	Brig	1885	Sunk	Battery Island
87. *Wave*	Steamer	1885	Exploded	Wilmington
88. *Alpha*	Tugboat	1886	Exploded	Wilmington
89. *Bladen*	Steamer	1886	Burnt	Wilmington
90. *Lillie Holmes*	Schooner	1886	Burnt	Wilmington
91. *River Queen*	Steamer	1886	Burnt	Wilmington
92. *Wave*	Schooner	1886	Ashore	Battery Island
93. Unknown	Flatboat	1886	Sunk	Wilmington
94. *Excelsior*	Steamer	1887	Burnt	Wilmington
95. *Regulator*	Steamer	1887	Burnt	Wilmington
96. *James Mason*	Brig	1888	Burnt	Point Peter, raised?
97. *Queen of St. John*	Steamer	1889	Burnt	Point Peter, raised?
98. *S.B. Vrooman*	Schooner	1889	Burnt	Wilmington
99. *Stetson*	Steamer	1889	Sunk	Off Kendal Plantation
100. Unknown	Schooner	pre-1890	Unknown	Wilmington
101. *Blanche*	Tugboat	1890	Burnt	Southport
102. *Louis Harmond*	Schooner	1890	Grounded	Near Southport
103. *Pauline*	Bark	1890	Unknown	Southport
104. *Anna*	Steamtug	1891	Burnt	Wilmington
105. *Sylvan Grove*	Steamer	1891	Burnt	Wilmington
106. Unknown	Batteau	1891	Sunk	Wilmington
107. *A.R. Weeks*	Schooner	1893	Unknown	Battery Island
108. *Blanche Creamer*	Schooner	1893	Unknown	Near Battery Island
109. *L.A. Burnham*	Schooner	1893	Unknown	Southport wharf
110. Unknown	Dredge	1893	Burnt	12 m. below Wilmington
111. Unknown	Skiff	1893	Sunk	Campbell Island
112. *D. Murchinson*	Steamer	1894	Burnt	Clark's Island
113. Unknown	Mud Scow	1894	Burnt	Campbell Island
114. *Chief*	Pilot Boat	1895	Sunk	Skinner's Shipyard
115. *Cape Fear Dude*	Tugboat	1896	Collision	Wilmington
116. Unknown	Scow	1896	Sunk	Quarantine Station
117. *Navassa*	Tugboat	1897	Burnt	Horseshoe Bend
118. *Ethel* (or *Etta*)	Sharpie	1897	Capsized	Rheder's Point
119. *Jacob Brandow*	Tugboat	1898	Burnt	Battery Island
120. *Anna II*	Steamer	1899	Burnt	Wilmington
121. Unknown	Launch	1899	Sunk	Quarantine Station
122. *Woodruff*	Tugboat	1899	Sunk	Quarantine Station
123. *Enterprise*	Sharpie	1900	Collision	Dram Tree, raised
124. *Climax*	Steamer	1901	Burnt	Grace St. dock
125. Unknown	Lighter	1901	Sunk	Wilmington
126. *Bessie Moore*	Sharpie	1904	Lost	Between Southport and Wilmington
127. *Ava*	Yacht	1905	Collision	Town Creek
128. *Lillie*	Steamer	1906	Burnt	Southport
129. Unknown	Lighter	1906	Struck piling	Market House Dock, Wilmington
130. *Southport*	Steamer	1910	Collision	15 m. S. of Wilmington
131. *Clifford*	Gas boat	1911	Burnt	Cape Fear River
132. Unknown	Mud Scow	1911	Burnt	Cape Fear River
133. *Francis Elizabeth*	Pilot Boat	1912	Burnt	2 m. above Southport
134. *John Twohy*	Schooner	1913	Ashore	Cape Fear River
135. *Bladen*	Gas Tug	1914	Burnt	Wilmington
136. *Louise*	Gas Screw	1914	Stranded	Near Wilmington
137. Unknown	Launch	1915	Burnt	Foot of Dawson Street

138.	Unknown	Unknown	pre-1916	Unknown	Site of Custom House
139.	*Daniel*	Gas Screw	1916	Sunk	Wilmington
140.	*George L. Lyon*	Gas Screw	1917	Sunk	Wilmington
141.	*Helen B.*	Gas Launch	1918	Burnt	Foot of Walnut Street
142.	*DeRomer C.*	Bark	pre-1919	Burnt	South Wilmington
143.	*Lily*	Schooner	pre-1919	Burnt	Cape Fear River
144.	Unknown	Spanish Brig	pre-1919	Burnt	South Wilmington
145.	*Rosa*	Steamer	1919	Sunk	Wilmington
146.	*Mohawk*	Gas Screw	1920	Burnt	Wilmington
147.	Unknown	Lighter	1920	Capsized	Government Yard
148.	*Hobart A. Rogers*	Gas Screw	1921	Burnt	Wilmington
149.	*Josephine*	Schooner	1923	Sunk	Near Liberty Shipyard
150.	*Kingston*	Tugboat	1923	Hit Obstruction	Point Peter, raised
151.	*R.W. Taylor*	Gas Screw	1923	Burnt	Wilmington
152.	*A.P. Hurt*	Steamer	1923	Sunk	Wilmington
153.	Unknown	Motor Boat	1923	Sunk	Foot of Queen St.
154.	Unknown	Boat	pre-1924	Unknown	Foot of Castle St.
155.	*Charles M. Whitlock*	Steamer	1926	Abandoned	Near Hamme Railway
156.	*Ethel G.*	Gas Screw	1926	Ashore	Cape Fear River
157.	*Evelyn*	Steamer	1926	Burnt	Near river buoy #16
158.	*Islander*	Steamer	1926	Burnt	Southport
159.	*Flora*	Barge	1927	Collision	Cape Fear River
160.	*Belfast*	Barge	1929	Ashore	Battery Island
161.	*Chelsea*	Oil Freighter	1938	Burnt	Cape Fear River
162.	*John Knox*	Ferryboat	1937	Sunk	Stone boat yard
163.	*H.G. Wright*	Steamer	1939	Abandoned	Wilmington
164.	Unknown	Cabin Boat	1946	Burnt	Stone Marine Railway
165.	*Blanche*	Tugboat	1947	Collision	Big Island, raised
166.	*George E. Mason*	Tugboat	1948	Sunk	Foot of Chestnut St.
167.	*John J. Morehead*	Steamer	1954	Unknown	Near Southport
168.	*W.P. Anderson*	Oil Freighter	1954	Unknown	Off Southport
169.	*Stone 6*	Tugboat	1959	Foundered	Stone Boat yard
170.	*City of Fayetteville*	Barge	1960	Burnt	Cape Fear River
171.	*Miss Carolina*	Oil Screw	1965	Burnt	Cape Fear River

Northeast Cape Fear River (NER)

172.	Unknown	Schooner	1781	Destroyed by British	Northeast river
173.	Unknown	Sloop	1781	Destroyed by British	Northeast river
174.	*Spray*	Steamer	Unknown	Sunk	Above Hilton Bridge
175.	Unknown	Scow	pre-1931	Sunk	Mouth of Smith's Creek
176.	Unknown	Unknown	pre-1931	Sunk	Mouth of Smith's Creek
177.	*Manson #1*	Tugboat	1931	Sunk	Foot of Cowan St.
178.	Unknown	Barge	1940	Abandoned	Point Peter

Cape Fear Inlet (CFI)

179.	Unknown	Flagship	1526	Aground	Mouth of river
180.	Unknown	Flyboat	1665	Aground	Middle Ground
181.	Unknown	Unknown	1696	Unknown	Cape Fear Inlet
182.	Unknown	Brigantine	1752	Wrecked	Near Cape Fear
183.	*Anne*	Unknown	1760	Wrecked	Cape Fear Bar
184.	Unknown	Ship	1761	Ashore	Mouth of river

185.	*Union*	Unknown	1763	Wrecked	Cape Fear Bar
186.	Unknown	Unknown	1767	Aground	Cape Fear Bar
187.	*Enterprise*	Ship	1768	Cast away	Mouth of river
188.	*Elizabeth & Mary*	Brigantine	1774	Ashore	Inside Cape Fear Inlet
189.	*Clementine*	Ship	1775	Aground	Middle Ground
190.	Unknown	Unknown	1784	Aground	Mouth of river
191.	*Neptune*	Brig	1789	Aground	Mouth of river
192.	Unknown	Unknown	1803	Aground	Mouth of river
193.	*Rhine*	English Ship	1810	Lost	Cape Fear Bar
194.	*Young Factor*	English Ship	1811	Lost	Cape Fear Bar
195.	*Sabine*	Privateer	1814	Lost	Cape Fear Bar
196.	*Little Dick*	Ship	1816	Lost	Cape Fear Bar
197.	*Victor*	Schooner	1847	Lost	Cape Fear Bar
198.	*H. Wescott*	Schooner	1850	Ashore	Entrance to inlet
199.	*Fayetteville*	Tugboat	1853	Exploded	Inside Cape Fear Bar
200.	*Frying Pan Shoals "D"*	Lightship	1861	Destroyed by US Navy	Above Fort Caswell
201.	*Louisa*	Schooner	1861	Destroyed by US Navy	Cape Fear inlet
202.	*Emily*	Schooner	1862	Burnt to avoid capture	Cape Fear inlet
203.	*Zaide*	Schooner	1862	Destroyed by US Navy	Mouth of river
204.	Unknowns	Lighters (2)	1862	Sunk as Obstructions	Inner Bar
205.	*Kate II*	Steamer	1863	Destroyed by US Navy	Smith's Island
206.	*Badger*	Steamer	1864	Destroyed by US Navy	Inside Cape Fear Bar
207.	*Ella*	Steamer	1864	Destroyed by US Navy	Smith's Island
208.	*Georgiana McCaw*	Steamer	1864	Destroyed by US Navy	Near Fort Caswell
209.	*Florie*	Steamer	1864	Destroyed by US Navy	Inside Cape Fear Bar
210.	*Spunkie*	Steamer	1864	Destroyed by US Navy	Near Fort Caswell
211.	USS *Violet*	Gunboat	1864	Removed 1893	Western Bar
212.	*Agnes Fry*	Steamer	1864	Destroyed	Near Fort Caswell
213.	*Pine*	Sloop	1868	Ashore	Cape Fear Bar
214.	*Alex Sprunt*	Lighter	1872	Went to pieces	Cape Fear Inlet
215.	Unknown	Steamer	1873	Sunk	Western Bar
216.	*Felicitus*	Bark	1874	Ashore	Main Cape Fear Bar
217.	*Maria Needham*	Bark	1874	Ashore	Middle Ground
218.	*Samuel McManemy*	Schooner	1883	Unknown	Cape Fear Bar
219.	*Vapor*	Schooner	1885	Stranded	Cape Fear Bar
220.	*Gaboon*	Steamer	1889	Unknown	Cape Fear Inlet
221.	*San Antonio*	Bark	1890	Grounded	Middle Ground
222.	Unknown	Ship's boat	1890	Unknown	Outer Cape Fear Bar
223.	*Stella*	Bark	1892	Unknown	Cape Fear Bar
224.	*Alphid*	Bark	1893	Ashore	Ella Shoals
225.	*Arbela*	Bark	1893	Ashore	Cape Fear
226.	*Italian*	Steamer	1893	Unknown	Cape Fear Bar, raised?
227.	*Dorset*	Steamer	1894	Unknown	Cape Fear Bar
228.	*Ogir*	Bark	1894	Grounded	Middle Ground
229.	*Harvest*	Sharpie	1895	Unknown	Cape Fear Inlet
230.	*John B.*	Schooner	1895	Unknown	Cape Fear Inlet
231.	Unknown	Bark	pre-1896	Sunk	Caswell Point
232.	*Levy Davis*	Tugboat	1896	Ashore	Off Baldhead Island
233.	*Myrtledene*	Steamer	1897	Unknown	Cape Fear Inlet
234.	*Tenby*	Steamer	1901	Unknown	Cape Fear Inlet
235.	*Gertrude L. Trundy*	Schooner	1903	Unknown	Cape Fear Inlet
236.	*Krait*	Sloop	1904	Unknown	Cape Fear Inlet
237.	*Manana*	Sloop	1904	Unknown	Cape Fear Inlet
238.	*Atlantic*	Steamer	1906	Collision	Near Fort Caswell,

raised

239.	*La Reine*	Gas Boat	1909	Unknown	Cape Fear Inlet
240.	*Charles H. Valentine*	Schooner	1911	Ashore	Smith Island
241.	*Idlehour*	Gas Boat	1911	Unknown	Cape Fear Inlet
242.	*Thalia*	Schooner	1914	Unknown	Cape Fear Inlet
243.	*Col. Thomas F. Austin*	Schooner	1916	Aground	Middle Ground
244.	*Leverine*	Barge	1920	Ashore	Off Cape Fear Bar
245.	Unknown	Barge	1930	Sunk	Off Cape Fear River
246.	*W.S. Pigot*	Schooner	????	Ashore	Cape Fear Bar

New Inlet (NEI)

247.	*Victory*	Sloop	1802	Went to pieces	New Inlet Bar
248.	*Union*	Schooner	1803	Cast away	New Inlet
249.	Unknown	Brig	1837	Ashore	New Inlet
250.	*Neptune*	Steamer	1838	Ashore	New Inlet
251.	*Olive*	Schooner	1841	Ashore	Inside New Inlet Bar
252.	*Venue*	Schooner	1842	Stranded	New Inlet
253.	*Samuel Ingham*	Schooner	1843	Ashore	New Inlet
254.	*Orr*	Unknown	1851	Sunk	New Inlet
255.	*J.W. Blodgett*	Bark	1857	Ashore	New Inlet
256.	*Angola*	Brig	1860	Ashore	Reef inside New Inlet
257.	*Glass Blower*	Schooner	1860	Sunk	Carolina Shoal
258.	*Lady Wehdbee*	Schooner	1860	Stranded	New Inlet Bar
259.	*Fanny Lewis*	Brig	1862	Ashore	New Inlet
260.	Unknown	Brig	1862	Ashore	Near Fort Fisher
261.	Unknown	Schooner	1862	Unknown	New Inlet
262.	Unknown	Brig	1862	Sunk as Obstruction	Horseshoe Shoal
263.	*Arabian*	Steamer	1863	Destroyed by US Navy	New Inlet Bar
264.	*Union*	Steamer	1863	Sunk	Off Fort Fisher
265.	*Annie*	Steamer	1864	Destroyed by US Navy	Off New Inlet
266.	USS *Aster*	Gunboat	1864	Aground	New Inlet
267.	*Condor*	Steamer	1864	Destroyed by US Navy	North Reef, New Inlet
268.	*Night Hawk*	Steamer	1864	Destroyed by US Navy	New Inlet, Fed Shoals
269.	*Stormy Petrel*	Steamer	1864	Destroyed by US Navy	New Inlet
270.	*Tsaliman*	Steamer	1864	Hit wreck	Inside New Inlet
271.	*Thistle*	Steamer	1864	Aground	New Inlet
272.	USS *Peterhoff*	Gunboat	1864	Collision	Off New Inlet
273.	CSS *Raleigh*	Ironclad	1864	Aground	Inside New Inlet
274.	*Twilight*	Steamer	1865	Destroyed by US Navy	New Inlet
275.	*Flambeau*	Steamer	1867	Sunk	New Inlet Bar
276.	*Alfred Thomas*	Schooner	1867	Ashore	New Inlet
277.	*L. Waring*	Schooner	1867	Hit Obstruction	New Inlet
278.	*Lucille*	Steamer	1869	Ashore	Near Zeke's Island
279.	*Gettysburg*	Schooner	1873	Ashore	New Inlet
280.	*Mary Wheeler*	Schooner	1873	Hit Obstruction	New Inlet
281.	*Siam*	Schooner	1874	Ashore	New Inlet
282.	*Ferrata*	Schooner	1876	Ashore	New Inlet
283.	*Etta May*	Schooner	1877	Ashore	New Inlet
284.	*Prosperita*	Brig	1879	Ashore	Off Federal Point Light
285.	*Catherine Marie*	Schooner	1880	Stranded	Inside New Inlet
286.	*Gen. F. E. Spinner*	Schooner	1885	Ashore	Fort Fisher
287.	*Thomas Hunt*	Sloop	1887	Ashore	New Inlet Shoals

288. *E.S. Powell*	Barkentine	1894	Ashore	New Inlet Bar
289. *Mary C.*	Sharpie	1904	Sunk	New Inlet
290. *Mary Wheeler*	Sharpie	1904	Hit Rock Jetty	New Inlet
291. *Riposa II*	Gas Yacht	1922	Stranded	New Inlet

Appendix 1B
Cartographic Sources

Author	Date	Map Title
John White	1585	*Untitled*
White and De Bry	1590	*Americae pars, Nunc Virginia . . .*
Mercator and Hondius	1606	*Virginiae Item it Floridae . . .*
Nicholas Comberford	1657	*The South Part of Virginia . . .*
Nicolas Shapley	1662	*Untitled Sketch of the Discovery made by William Hilton*
Robert Horne	1666	*Carolina Described*
John Ogilby	1672	*A New Discription of Carolina . . .*
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John Lawson	1709	*A Map for the Lords Proprietors of Carolina*
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Herman Moll	1729	*Carolina*
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James Wimble	1738	*North Carolina*
Edward Hyrne	1749	*A New and Exact Plan of Cape Fear River from the Bar to Brunswick*
Anonymous	1750	*A Plan of Wilmington . . .*
C. J. Sauthier	1769	*Plan of the Town of Willmington in New Hanover County, North Carolina.*
C. J. Sauthier	1769	*Plan of the Town and Port of Brunswick, in Brunswick County, North Carolina.*
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Henry Mouzon	1775	*An accurate map of North and South Carolina...*
Anonymous	1778	*Riviere du Cap Fear de la Bare a Brunswick*
Thomas Kitchin	1778	*A Map of the Seat of War in the Southern Part of Virginia, North Carolina, and . . .*
Anonymous	1781	*Cape Fear River with Counties Adjacent and the towns of Brunswick and Wilmington . . .*
Anonymous	1781	*Plan of Wilmington in the Province of North Carolina*
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Potter	1814	*Untitled*
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Hamilton Fulton	1823	*Survey of the Cape Fear River from the Upper to the Lower Flats*
U.S. Army Corps of Engineers	1827	*Cape Fear River, N.C. Below the Town of Wilmington*
Mac Rae and Brazier	1833	*A New Map of The State of North Carolina*
U.S. Army Corps of Engineers	1839	*Cape Fear River North Carolina*
A.C. Dickinson	1848	*Plan Of Wilmington, North Carolina . . .*
U.S. Coast Survey	1851	*Sketch of Frying Pan Shoals and Cape Fear River*
U.S. Coast Survey	1853	*Preliminary Chart of the Entrances to Cape Fear River and New Inlet North Carolina*
L. C. Turner	1856	*Plan of Wilmington, North Carolina*
U.S. Coast Survey	1856	*Preliminary Chart of Lower Part of Cape Fear River North Carolina From Near Federal Point to Wilmington*
U.S. Coast Survey	1857	*Comparative Chart of Cape Fear River Entrances North Carolina*
U.S. Coast Survey	1857	*Preliminary Chart of Frying Pan Shoals and Entrances to Cape Fear River North Carolina*
U.S. Coast Survey	1858	*Preliminary Chart of Frying Pan Shoals and Entrances to Cape Fear River North Carolina*
U.S. Coast Survey	1859	*Comparative Chart of Cape Fear River Bars ...*
U.S. Coast Survey	1859	*Comparative Chart of New Inlet Bar. . .*
John Bachman	1861	*Bird's Eye View of North and South Carolina...*
J. H Colton	1861	*Topographical Map of North and South Carolina*
C.S. Army Engineers	1863	*Chart of the Obstructions in the Cape Fear & Brunswick Rivers and the Batteries . . .*
C.S. Army Engineers	1863	*Topographical Map showing the Fortifications & Roads in the vicinity of the Cape Fear*
U.S. Army Corps of Engineers	1864	*Chart Accompanying Project for Effectually Closing Cape Fear River and the Port of Wilmington . . .*
C.S. Army Engineers	1864	*Map of Parts of Brunswick & New Hanover Counties Showing the Approaches . . .*
C.S. Army Engineers	1864	*Map of the Vicinity of Wilmington*
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C.S. Army Engineers	1864	*Map of "Bald Head" & Cape Fear*
C.S. Army Engineers	1865	*Chart of the Obstructions in the Cape Fear and Brunswick Rivers and the Batteries . . .*
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U.S. Army Corps of Engineers	1865	*Sketch of Vicinity of Fort Fisher and Plan of Fort Fisher Carried by Assault by the . . .*
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O.W. Gray	1873	*Gray's New Map of Wilmington North Carolina and Central Part of Wilmington*
U.S. Army Corps of Engineers	1875	*Diagram Showing Plan of Proposed lines of Work for Closing New Inlet*
U.S. Army Corps of Engineers	1876	*Comparative Chart of Lower Part of Cape Fear River, North Carolina*
U.S. Army Corps of Engineers	1876	*Obstruction Channel Cape Fear River, N.C.*
U.S. Army Corps of Engineers	1880	*Town Creek, N.C.*
W.C. Kerr and William Cain	1882	*Map of North Carolina*
Anonymous	1884	*Sanborn Fire Insurance Map*
U.S. Army Corps of Engineers	1884-1885	*Annual Progress Map Cape Fear River (below Wilmington)*
U.S. Army Corps of Engineers	1885	*Cape Fear River Entrances*
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U.S. Army Corps of Engineers	1885	*Annual Progress Map Cape Fear River (Below Wilmington)*
U.S. Coast and Geodetic Survey	1886	*Cape Fear River North Carolina*
U.S. Army Corps of Engineers	1886	*Progress Map Cape Fear River (Below Wilmington)*
U.S. Coast & Geodetic Survey	1887	*Coast of North Carolina from Federal Point to Smith's Isd.*
U.S. Coast & Geodetic Survey	1888	*Cape Fear River From Entrance to Reeves Point North Carolina*
U.S. Army Corps of Engineers	1889	*Northeast Cape Fear River, N.C.*
James & Brown	1889	*Hilton*
Anonymous	1889	*Sanborn Fire Insurance Map*
U.S. Army Corps of Engineers	1891	*Progress Map for 1891 Cape Fear River below Wilmington, N.C.*
U.S. Army Corps of Engineers	1891	*District of U.S. River & Harbor Improvements*
Anonymous	1892	*Map of Wilmington, N.C. showing the Vicinity of Wilmington, . . .*
Anonymous	1893	*Sanborn Fire Insurance Map*
U.S. Army Corps of Engineers	1893	*North East (Cape Fear) River, N.C.*
U.S. Army Corps of Engineers	1895	*Improvement of Cape Fear River, N.C. Below Wilmington, Showing Cuts Dredged . . .*
U.S. Army Corps of Engineers	1895	*Improvements of the Cape Fear River, N.C. Showing Channel Through Alligator Creek . . .*
von Haake	1896	*Post Route Map of the States of North Carolina and South Carolina*
Anonymous	1898	*Sanborn Fire Insurance Map*
U.S. Army Corps of Engineers	1900	*Map of Wilmington Harbor North Carolina showing Proposed Anchorage Basin*
U.S. Coast and Geodetic Survey	1901	*Cape Fear River from Reeves Point to Wilmington North Carolina*
U.S. Coast and Geodetic Survey	1901	*Cape Fear River from Entrance to Reeves Point North Carolina*
Anonymous	1904	*Sanborn Fire Insurance Map*
U.S. Army Corps of Engineers	1906	*Untitled*
U.S. Army Corps of Engineers	1909	*Cape Fear River at and below Wilmington, N.C. Plat of Proposed Engineer Yard*
U.S. Army Corps of Engineers	1909	*Cape Fear River At and Below Wilmington, N.C. Plat of Proposed Yard for Engineer . . .*
U.S. Army Corps of Engineers	1910	*Cape Fear River, North Carolina From the Ocean to Wilmington . . .*
Anonymous	1910	*Sanborn Fire Insurance Map*

P. P. Pilcher	1911	*Map of Wilmington North Carolina*
U.S. Army Corps of Engineers	1912	*Cape Fear River, N.C. in the immediate vicinity of the U.S. Quarantine Station*
U.S. Army Corps of Engineers	1914	*Cape Fear River, N.C. at and below Wilmington Showing Conditions . . .*
Anonymous	1915	*Sanborn Fire Insurance Map*
U.S. Army Corps of Engineers	1916	*Town Creek, N.C. (Brunswick County)*
U.S. Army Corps of Engineers	1916	*Entrances to Mouth of Town Creek, N.C. Brunswick County*
U.S. Army Corps of Engineers	1917	*Cape Fear River, N.C. below Wilmington Ocean Bar*
J. L. Becton	1918	*Wilmington, North Carolina*
U.S. Army Corps of Engineers	1921	*Sailing Lines Ocean Bar*
U.S. Army Corps of Engineers	1922	*Port Facilities at Wilmington, North Carolina*
U.S. Army Corps Of Engineers	1927	*Cape Fear River below Wilmington, N.C. . . . Sheet 1*
U.S. Army Corps of Engineers	1927	*Cape Fear River Below Wilmington, N.C., . . . Sheet 2*
U.S. Coast and Geodetic Survey	1929	*Cape Fear River From Reeves Point to Wilmington*
U.S. Army Corps of Engineers	1931	*Smiths Creek in the Vicinity of Wilmington, N.C.*
U.S. Army Corps of Engineers	1937	*Smiths Creek, Wilmington, N.C.*
U.S. Army Corps of Engineers	1937	*Cape Fear River N.C. At and Below Wilmington, Wilmington Harbor*
U.S. Army Corps of Engineers	1937	*Cape Fear River, N.C., At and Below Wilmington, Wilmington Harbor (Anchorage Basin)*
U.S. Army Corps of Engineers	1937	*Cape Fear River Below Wilmington, N.C. In Front of Southport*
U.S. Army Corps of Engineers	1939	*Cape Fear River Below Wilmington, N.C. Southport to Fort Caswell*
U.S. Army Corps of Engineers	1939	*Cape Fear River, N.C. Location of Wreck of Barge "Belfast"*
U.S. Coast & Geodetic Survey	1944	*North Carolina — New River Inlet to Cape Fear*
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U.S. Army Corps of Engineers	1947	*Cape Fear River, North Carolina at and below Wilmington, Wilmington Harbor*
U.S. Army Corps of Engineers	1948	*Cape Fear River, N.C. at and Below Wilmington, Wilmington Harbor Turning Basin and Approaches*
U.S. Army Corps of Engineers	1948	*Cape Fear River, N.C. at and Below Wilmington, . . . (Anchorage Basin)*
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U.S. Army Corps of Engineers	1959	*Wilmington Harbor, N.C., Turning Basin and Approaches*
U.S. Coast and Geodetic Survey	1959	*Cape Fear River, Cape Fear to Wilmington*
N. C. Division of Archives and History	1960	*Site of Brunswick Town . . .*

U.S. Army Corps of Engineers	1961	*Cape Fear River, N.C., Above Wilmington, Wilmington to Fayetteville.*
Anonymous	1964	*Cape Fear Peninsula & Estuary North Carolina*
U.S. Geological Service	1970	*Carolina Beach, N.C.*
U.S. Geological Service	1970	*Castle Hayne, N.C.*
U.S. Geological Service	1970	*Cape Fear, N.C.*
U.S. Geological Service	1979	*Kure Beach, N.C.*
U.S. Geological Service	1979	*Wilmington, N.C.*
U.S. Army Corps of Engineers	1983	*Index Map for Dredging, Wilmington Harbor, N.C.*
U.S.Geological Service	1990	*Southport, N.C.*
NOAA	1992	*United States — East Coast — North Carolina — Cape Fear River — Cape Fear to Wilmington*

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